

BOARDWATCH **MAGAZINE**

Guide to Electronic Bulletin Boards & the Internet

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July 1994

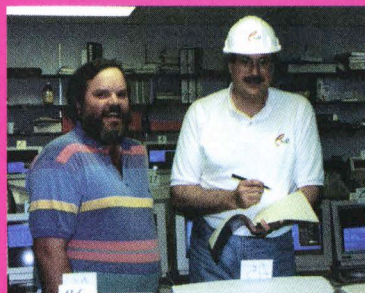
BOARDWATCH MAGAZINE



DVORAK
ONLINE
The Future of
the Internet....
The BBS



U.S. Robotics New V. Everything
Modem - Page 24



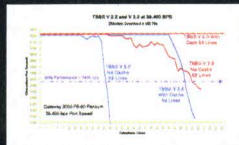
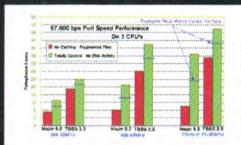
Bob Hartman and Phil Becker Put
TBBS 2.3 to the Test in the eSoft
Test Lab - Page 31



GEnie - Airwars - Page 104

TABLE OF CONTENTS

EDITOR'S NOTES	8
"The" Bill Gates	
DVORAK ONLINE	140
The Future of the Internet - The BBS	
IN MY HUMBLE OPINION - LETTERS TO THE EDITOR	10
TELEBITS	24
Galacticomm Upgrades Online Database to Include Photos.....24	
U.S. Robotics Announces new V. Everything Modem24	
QmodemPro for Windows Price Cut25	
Supra Announces V.34 Upgrade Plan26	
Bell Atlantic Rolls Out CDPD Service for Cellular Data26	
Libertarian Party Announces Opposition to Digital Telephony Act26	
TeleGrafix Signs New CEO28	
Multiline Bulletin Boards - More Test Numbers and a new TBBS 2.3.....31	
Tools of the Trade - Photostyler 2.0 - Mac-In-DOS47	
People Online - The Gang's All Here - In Person54	
INTERNETICA	56
eSoft Opens FTP/Telnet Access.....57	
E-Mail Addresses of the Rich and Famous.....57	
Modular Gopher, World Wide Web and FTP Packages58	
Pronto - Remote Access to UNIX Mail58	
Pretty Good Privacy E-Mail Encryption Version 2.6 Released58	
IDT Offers Free Internet Access to Long Distance Customers.....60	
NetCash - Online Pocket Change60	
Just the FAQs Ma'am66	
ACCESS TO GOVERNMENT	74
Dropping the Government Drawbridge	



ISSN: 1054-2760
Volume VIII, Issue 6
July 1994

More Multiline Numbers - How Fast and How Many?

THE BIG BOARDS

92

Delphi.....	92
America Online	96
GEne.....	104
Prodigy.....	100
CompuServed.....	102

MACINTOSH BBS NEWS

80

Accessing Mac Hosts Via Internet	80
New Mac Gaming Board.....	84

EDUCATION LINK

78

K12 Takes High Ground	78
Your Tax Dollars at Work.....	79

LEGALLY ONLINE

88

Does the First Amendment Protect Software Piracy.....	88
BBS Sysop Liability for Copyright	108
Steve Jackson Games vs. U.S. Secret Service - Update	110

TELECONFUSION

106

Jack In the Bean Tube and the Little Tree that Couldn't	
---	--

DIRECT DIAL

111

Lost In Space - UFO BBS.....	111
What's Cooking - A Chef's BBS.....	112
Flying by Modem - Air Fares/Schedules Online.....	113
Kentucky Explorer BBS.....	114
Tons O' Tunes by Telnet - 80,000 CDs Online	115

LIST DIRECTORY

This Month: Kentucky Area Code 606 BBS List	116
UUCP Host List.....	70
BBS Software Vendors List.....	120
List of List Keepers	118
The Big List.....	121
Boardwatch National List	130
Boardwatch Advertisers	136

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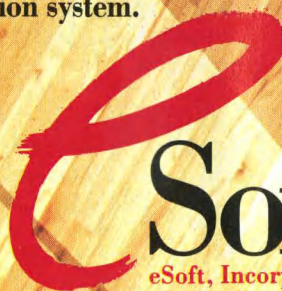
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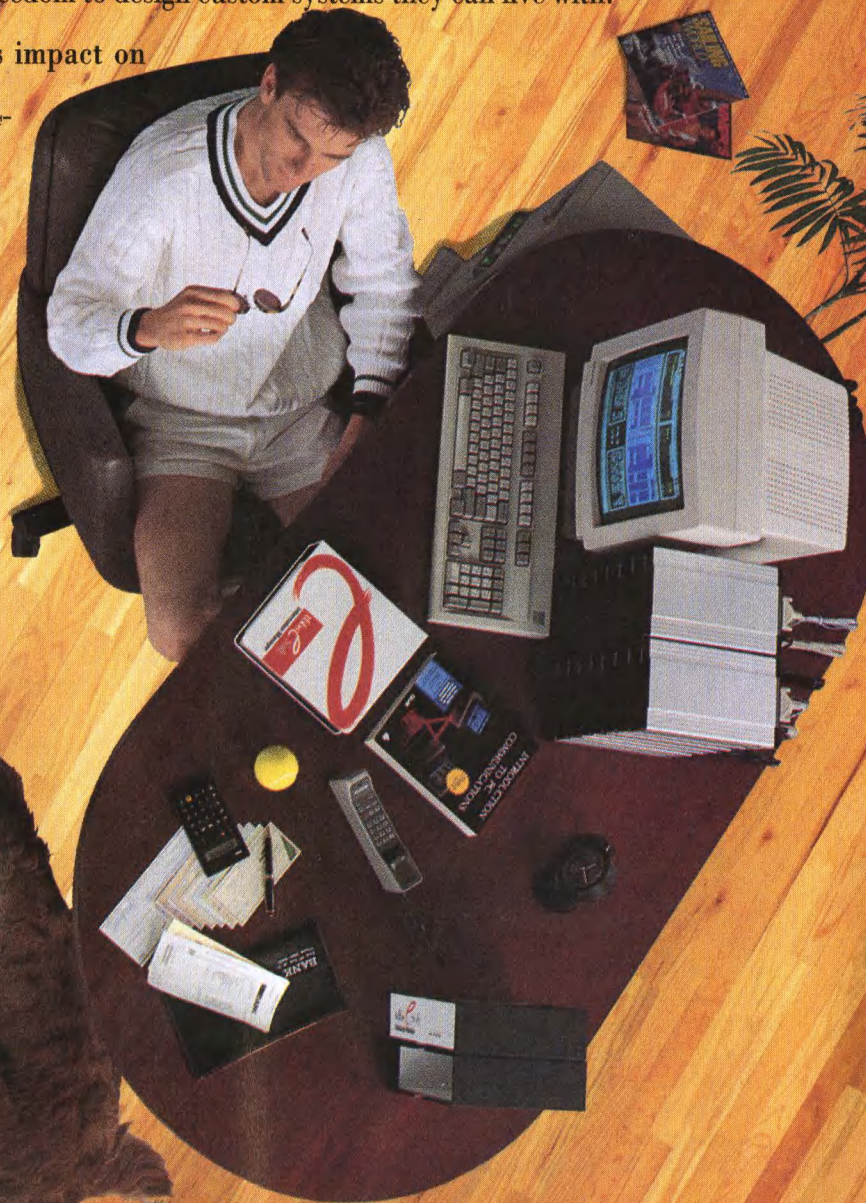
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*Picture shows complete 16 user TBBS/TDBS System.

EDITOR'S NOTES

"THE" BILL GATES

The online community has developed a bit of a malaise that probably needs to be addressed at some point - albeit probably ineffectually. We're all taking it entirely too seriously. Yes, yes, I know it will change the world, establish the forums of the future, and probably revolutionize the manufacture of under garments, but for Christ's sake give it a rest.

In the early days of this genre, bulletin boards, online services, and for that matter personal computers were mainly for fun. In those days, the question that kept coming up was "what is it good for." It was good for the soul - a quizzical puzzle. Like the old piano lesson ad - "They laughed when I said I could play the computer, but when I sat down to play...they were AMAZED." It was a fun adventure - a new toy for boys. There was a certain camaraderie to being a nerd and it engaged the mind.

Somewhere along the way, personal computers became an "industry" and were taken "seriously." A thirtyish character with hair askew and eyeglasses akimbo became a billionaire, and the race was on to roll up the millions and it all became very serious - and what had been fun began looking more and more like office equipment sales. There was serious "competition" and serious amounts of "money" and serious discussions about the future of the "industry."

It appears success will afflict the online industry as well. What's it good for? Well it's fun and that's sufficient unto the moment. In the quest to come up with a second reason to develop it, to give it some "useful" function, it's all gotten to be very serious. It could have a "serious" impact on education. We might have a serious problem with the information "have-nots."

Every software vendor, BBS operator, and online service we talk to is suddenly awash in money, business and fame. I guess a little success is what everyone wanted more or less, but instead of enjoying it, it looks like everyone is planning the next International Consortium Oligarchy of The House of UUCP Utilities Empire or whatever. The comfortable pace of a small clientele of enthusiasts gave way to non-stop telephone calls, faxes, e-

mail by the megabyte, new employees, insurance programs, and all the detritus of the larger software company brethren. Are companies such as Borland Software, Word Perfect, Microsoft and others of their situation really the model you want to evolve to?

And online everyone is getting a little snappish about it. There have always been flames in message conferences, but it's getting ridiculous. Flames used to be reserved as the exclusive domain of people who didn't like each other - at least electronically. At the least, they would disagree on something, or perhaps take exception to the other's tone. An affront to ego or some sort of offense was required. Today, we're seeing people post flames anonymously and addressed to ALL. It's gone crazy.

In a USENET awash with goofy ads, pyramid/chain letters, and multilevel marketing that long predate the fading of the Acceptable Use Policy, an Albuquerque lawyer posted a really pretty entertaining message about a "green card lottery" in the immigration game that I found interesting. In the signature, it was apparent that he was an immigration lawyer. But the net erupted in rage with e-mail to his host sysadmin that was all out of proportion to the crime. In fact, reviewing the messages ON USENET on a daily basis, you couldn't make a case against this guy on a bet. Yet he's being pilloried in such a bitter and venomous fashion, I have to ask what's at stake here?

And the news media just never is going to let up on the concept of digging out the "sex online story". There is no sex online, and you couldn't fax each other a cigarette afterwards even if there was. They're combing the nets like a pack of dogs trying to find the "online sex pervert who sent e-mail to the thirteen year-old boy" story of the week. It's not only not a problem, it takes test instruments to find it happening, and I can't quite get right with the concept of a kid being emotionally scarred for life by electronic mail. You don't need "protection" from this sort of thing. You need a life maybe.

The heart of it is that the creative minds are being crowded out by the "me too" sod busters and those types tend to be very serious, build enormous companies generating millions of

dollars, and die a nervous death in poverty and despair. I'd like to pass on that frankly. But recently the Boardwatch office has been getting sort of grim looking as well. Well enough already.

In March 1990, we wrote an editorial about the Death of the Corporation that has been reprinted any number of times. It described a changing model of how things get done, where large monolithic organizations will not thrive in an information age and cottage industry entrepreneurs would. The basic premise was that the way we organize groups of people to manufacture ten million electric irons is not necessarily the way to do everything, and not the way to do most things that would be perceived as valuable in the future. Many of the economic changes that have occurred in the last four years have shown that view to be prophetic.

The big question posed by those who need a big organization to hide in is of course "How do tiny companies build starships?" I had posited the concept of recombinant modular companies made up entirely of small entrepreneurial companies. The idea is not so strange as it sounds. The construction industry has always worked this way. Small contractors band together to build a single building. A general contractor, a plumbing contractor, an electrical contractor, a drywall contractor, a heating/air conditioning contractor, a carpeting contractor, a masonry contractor, a roofing contractor. Often, these are smallish companies of five or six people and indeed there are subcontractors to the subcontractors. They may add employees for a specific job, and shed them as needed. And the alliance between these contractors under the architect and general contractor is similarly temporary. I guess they form a "company" in the older sense of the word, but they all go separate ways once the building is completed. Some of them have worked with each other on dozens of projects over the years.

We recently attended a conference and trade show in Golden Colorado titled ENTCON with very nearly 40 attendees. I had to leave early on a trip and I've wished I had stayed ever since. It was fun. The people there had a good time. And it was run by one wild man named, interestingly enough Bill Gates.

This isn't Bill Gates of Microsoft Corporation, this is THE Bill Gates, a small press publisher that prints two superb little bi-monthlies, *Midnight Engineering* and *High Tech Entrepreneur*. These are very professional rags with a lot of personality. HTE goes about a 100,000 copies while ME runs about 30,000. They have ads, articles for the small entrepreneur, and a lot of humor - techie with an attitude.

Most interestingly, this wild man has a new theory of how companies ought to work. He calls it megaproductivity or superproductivity or something similar. And it illustrates the ultimate success of the modular concept in a graphic way. In publishing two magazines, he has a total staff of ONE - himself. He more or less assembled and produced this convention - by himself. And he DOESN'T do it by shopping work out to contractors. In fact, he's working to bring ALL the process IN HOUSE. While I'm trying to move stuff OFF of my desk to somebody else's, he's moving it all onto his. What did I miss?

This guy flew to New York, and he and his clearly post-adolescent father disassembled a monstrous old web press in the sixth floor of an ancient factory building, cut it up into pieces, dropped it down an elevator shaft, and loaded some 40,000 pounds of it on a rented flat bed trailer truck. He bought it for LESS than salvage/junk prices by agreeing just to get it out of there for them. He then drove it himself to his home in the booming megatropolis of Rocky Ford Colorado. Right now he's putting it back together and wiring it up to a PC so that he can run an entire web press printing and bindery plant BY HIMSELF in a building in the back yard. It is his intention to bring the entire printing, collating, binding, and distribution function for two magazines into his own operation where he has complete control and does it with NO employees. He's already publishing the books by himself, now he's going to print them by himself as well. And he insists he can do it quicker, better, and with greater control than he can have an established printer do it for him.

The concept here is a little stunning, as new concepts often are. But it might be that the promised productivity gains from technology and computers never did appear because we didn't have the vision to employ the technology in a proper context. We've been trying to automate tasks that no longer need be done at all. And we've tried to fit them

into models that are no longer needed either. Maybe we don't NEED to print more interdepartmental reports and memos faster, prettier, and in greater quantity. Rather, maybe we don't need either the reports, the memos, or the departments. If instead of applying the technology to get a 10% productivity gain at what we're doing poorly, why don't we apply them to change what we're doing entirely? What if we set out with the mission of 100X personal productivity gains? I don't know.

Can ONE MAN write, edit, layout, promote, market, and PRINT a magazine all by himself? Do we know for sure he can't? How many people would it take, if we started from scratch with this as our mission, to manufacture an automobile - for that matter operate a whole assembly line for automobiles? Or build a starship? We have yet to build one star ship in a row, so it's kind of hard to tell.

The point I'm taking aim at is that even within the PC industry itself most of the "success" resulted in companies only superficially different from the



ones that publish books, manufacture tire irons, or make clothing. We may have missed the point. Microsoft Corporation may be a little more productive, and operate in a slightly more "collegial" atmosphere, but in any big way, how do they differ from IBM? Or General Motors for that matter?

In the online community, we are already underway on the same path. Little software developers that had five people a couple of years ago are now housed in largish office facilities with 30 or 40 or 50 employees and actually

seemed determined to make the big time by acquiring all the detritus of the BIG software companies. A mindless aping of a success model that may be awry. Again I'll ask, is the Ashton-Tate, Borland, Novell, Word Perfect, Lotus model REALLY what you want to be when you grow up?

THE Bill Gates doesn't think so. And if he and a few others get this megaproductivity concept off the ground, they will bury conventional organizations so fast they'll have to read their own obituaries to find out what the hell happened. We've all assumed that the economies of the future will be different because they are based on symbolic and informational products. What if it isn't limited to that? What if superproductivity can be applied to manufacturing processes? Marketing? Distribution? If it's open season on everything, we do have some changes headed our way.

Stay tuned. I've asked THE Bill Gates to come to ONE BBSCON this August and "splain" it to me one more time in one of our sessions. By that time his one-man printing plant should be in operation in the back yard and he should be able to tell us in more detail just how this theory of megaproductivity can be put into play.

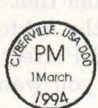
If you don't get *Midnight Engineering*, you simply must. It's a scream at \$24 per year to 1700 Washington Ave., Rocky Ford CO 81067.

BETTER YET, let's find out how this one man band answers his subscription phone all by hisse'f at (719)254-4558 voice or (719)254-4517 fax. Tell him Jack is real curious how he handles that part of it.

Meanwhile, life online or off just isn't all that serious. A hundred years from now, who'll recall what the dumb**** said about UNIX in the Windows conference, whose software was best at doing random sort and delete of e-mail, or which LAN is my LAN and which LAN is your LAN. The only thing certain they WILL remember is some of the same old jokes in rec.humor. So put on a pot of Twinings Earl Grey and lighten up.

Jack Rickard
Editor Rotundus
Boardwatch Magazine

IN MY HUMBLE OPINION



Letters to the Editor

Boardwatch Magazine
8500 W Bowles Ave Suite 210
Littleton Co 80123

Address correspondence to LETTERS TO THE EDITOR, Boardwatch Magazine, 8500 West Bowles Ave., Suite 210, Littleton, CO 80123, by fax to (303)973-7331, or by e-mail to LETTERS@BOARDWATCH.COM

Re: Multiline BBS's & A Trip to the Land of Galactinoids page 36 6/94 and other comments

Dear Mr. Rickard:

First, thank you for your article on multiline BBS's. My office needs the information contained in that article. The clear illustrations on page 38 and the definitions of the two types of BBS software cleared up a lot of assumptions and speculations we had. Our small NY State Government office has been experimenting with putting our information on a Wildcat BBS. We were about to expand it with more lines and then we were told that our information has to be placed on the Internet.

Your article came at exactly the right time for our expansion considerations, now we need the same clear commonsense type article on how to make connections to the Internet. We don't know how so we are hiring an outside vendor to take our information and place it on their computer and their Internet connection. But maybe someday we can take our information back and make our own connection.

Second, thank you for your reply to a letter (page 14, 6/94) about what the Internet actually is and some of its history.

Third, some philosophical comments of my own. I have noticed your libertarian type comments, some of which I agree with completely such as your reply to a letter concerning educating people about health care reform (page 22, 6/94) in which you state "What's an insurance company? And why do you allow them?" But some of your anti-government sentiments I have difficulty with.

Having been a bureaucrat for 25 years I am aware that government makes mistakes and can be in the way but I also know that we bureaucrats don't want to work any harder than we have to. We don't get out from behind our desks or out of our squad cars unless some citizen wants us to.

In your Editor's Notes column (page 8, 6-94) you describe a terrible and frightening

story of government harassment in Oklahoma. But before you simply blame "government" lets find out who sent the "government" off on this rampage. It appears that citizens who feel "they know" exactly what God wants sent the "government" off on this travesty of human rights.

In my 25 years of government work my actual productive work output has gone down because I now spend my time keeping track of who owns the businesses I do business with rather than just doing business with them. Why? Because politicians passed laws telling me to keep track of who the "government" does business with. Why did the politicians pass these laws, because the citizens asked for these laws.

We need libertarians to remind us bureaucrats that we can go too far but libertarians should also realize that the toughest job will be educating people not to ask for so much "government". Anything the people ask for the politicians will be happy to provide by hiring more of us bureaucrats to arrange it.

Also remember that when you get to be a really big business person you will want government to pass laws to make it difficult for others to follow in your foot steps as Jerry Pournelle has pointed out about big business in his columns in Byte Magazine

Thank you again for your excellent and very timely articles.
Very truly yours,

Mr. Lynn Ellsworth
299 Woodlawn Avenue
Albany, NY 12208
Mr. Ellsworth:

I can well understand why a bureaucrat of 25 years would have some difficulty with my anti-government sentiments. But I can hardly apologize for them. However unqualified, they are nonetheless strongly held. And I in turn have a serious problem with the "we only do what we're told to by the people we serve" excuse for lack of leadership, abuse of the rights of individuals, and the ever higher cost of supporting you in a style to which I would like to become accustomed. There is a serious fracture in perception between the working people of this country, and those who "serve" it. We do seem to be developing a class system: those on the government payroll, and those doing the paying. I see no good outcome to this.

That said, if in a more general sense you are implying that we all get precisely the government we deserve, I do fear we quite agree.

With regards to the Internet connection, I too have my legs crossed. It is quite frustrating at this point as I am aware of a number of development projects for connecting bulletin boards to the Internet in ways that are simply dumbfounding. The \$50,000 solution is going to become the \$5,000 solution so quickly it will take two years for the impact to be absorbed conceptually. And although I know a great deal more than I quite understand about this, as of today this minute, there are no good solu-

tions. As such, an article such as you describe would of necessity include a lot of arm waving about things you can't obtain at this point - and I'm hesitant to do that.

I might suggest a trip down to ONE BBSCON in Atlanta this August. It is my belief that several BBS vendors will have substantial product announcements and demonstrations on precisely this topic at that show, and there is little incentive at this point for them to do so before that time. We will of course follow this in the pages of Boardwatch in issues following the show. In the meantime, if you care to play, you can telnet or ftp to boardwatch.littleton.co.us, or dial our BBS at (303)973-4222 to telnet or ftp OUT to wherever strikes your fancy. It is a very beta test version of eSoft's solution, running on a junk 486-25 MHz with very little else beyond software and a 56 KB leased line.

And no, Mr. Ellsworth, however "big business" we ever do happen to become, I will never approve of government implementation of barriers to entry in any field at the behest of existing businesses. You may find it surprising in the cynical world in which you live, that the philosophical platform of many, many people in this country is not solely based on their wallet position.

Good luck with your system.

Jack Rickard

Dear Jack,

A very good friend of mine, Mary, suffered a stroke one year ago. Being homebound, her PC became her link to the outside world. Mary managed to find many friends on BBSes in the area. These "BBS pals" not only occupied her time, but they also gave her something to look forward to each day.

Since she was a PC Pursuit user, the long distance charges were manageable. Once Sprint discontinued PC Pursuit, Mary felt like she was cut off from the rest of her world. The rates charged by other LD services are much higher than those charged by Sprint.

My question is this: Do you or any of your readers know of any LD services that come close to the offerings of PC Pursuit? Or, do you know of any carriers that offer discounts to the handicapped? Much of Mary's outlook today depends on her ability to BBS.

If you, or any of your readers can be of help, please contact me at the address below.

Sincerely,

Jerome J. Pressner
Software Architects
PO Box 17
Thornton, IL 60476
(708)877-7160 voice

Dear Jerome:

PC Pursuit is indeed a casualty. I personally find that through various long distance programs and some judicious clock watching, we can get the much better performance of a direct dial connection in the PM at \$5-\$6 per hour, and using QWK offline mail readers, really minimize the charges. The 2400 bps PC Pursuit had fallen badly behind the times, and I'm told less than 2600 users were still on the service at the end.

That said, the urge to connect continues. X.25 has always been a strange beast. We are seeing it largely displaced by the Internet, which is actually a packet network of its own. I would urge you to examine the possibility of a dialup account with an Internet host provider, something along the lines of Holonet or Netcom. Typically for \$2 to \$4 per hour, she could then telnet/ftp to various bulletin boards and Internet sites on a global basis - essentially accomplishing the same thing.

But X.25 itself will not die. I understand Sprint is moving into new territory and should have a program soon if not already for people like Mary, at higher performance than the old PC Pursuit. In the interim, there is an interesting experiment by a company called Concentric Research Information Service (CRIS) with a Sprint X.25 connection. Basically, you pay \$2 per hour for access to their BBS on the network, but interestingly, you can also connect OUT from their BBS to any of a couple of hundred bulletin boards at an additional \$2 per hour. They offer a menu of bulletin boards. If you pick one, they dial OUT of the network to the BBS, and make the connection. They have over 1000 access points across the country. You can contact them at CRIS, 400 Forty-First St., Bay City, MI 48708; (800)745-2747 voice; (517)895-0510 data; (517)895-0529 fax.

Hope this helps.

Jack Rickard

Hi Jack:

I was just about to get out my checkbook and subscribe to Boardwatch, when I remembered I had hesitated to do so before this. It has to do with a reference you made back in the December 1993 issue, in the letters section. Responding to a writer regarding possible scenarios for the evolution of the Internet you said: "I've heard the annual state of Union address describing how telephone companies, cable companies, government, Microsoft, CompuServe, and the *Church of Scientology* (emphasis mine) were all goin to to swash all this grass roots BBS business with the BIG network every year since 1979.

While I don't want to make a big deal on a minor point, I do want to find out if this was just an ill-advised, in my opinion, attempt at humor, or whether you have some bone to pick with the Church of Scientology. I can assure you that the C of S has no intentions, interests, desires, plans or reason for "squashing" any grass roots efforts. In fact, if you are truly interested in freedom, you might find us a very good ally in the fight to keep freedom for spiritual beings alive on this planet and in this universe. For you to even make such a remark betrays a real lack of knowledge

about the Church of Scientology, and by the same token, a willingness to make a disparaging reference. To use a bit of a worn-out analogy: substitute "Jews" or "Unitarians" in your comment: a bit insulting to those who are devotees of these religious practices, no?

So, before I ally myself to Boardwatch, I would like to get this point clarified.

Best regards,

Steve Porter
73513.2457@compuserve.com

Steve:

I don't really believe you want to clarify anything, and you probably will want to invest those potential subscription dollars elsewhere. There is a virtual subculture of what I call the "ever ready to be offended" and they really don't do well with a subscription to Boardwatch. I don't understand how we continue to attract so many. Their world is based on forced domination of discussion by buzzword and intimidation, and are regularly infuriated that I don't buy into the game. It really drives them up a wall, and we have representatives from the Jewish community, femi-Nazis, militant anti-smokers, the environmentalists, etc. aplenty now.

You are quite correct in that I know little about the Church of Scientology, but yes, I'll probably offend them too a little before it's all over. In publishing a monthly it's just hard to get around to offending everyone desiring it in timely fashion, but we're doing the best we can. I just don't want to get your hopes up early when it could be months before I get a chance to really blast the Church of Scientology or any of the other really minor fringe sects that crop up. I'm still trying to chase down the 1/20 page display ad I saw advertising the Church of Bob. Now that one holds potential...

So before you ally yourself with Boardwatch, know what Boardwatch is and isn't. I do hope we clarified the point for you.

Jack Rickard

Jack:

Thank you for an excellent editorial on drawing the line between freedom of speech and self regulation. With the recent "Green Card" fiasco on the internet the timing could not be better. The internet community and the BBS community at large has done a fairly good job of policing itself over the years without government intervention. With the explosive growth in access providers and small operators there is bound to be a certain amount of tension generated as "newbies" burst onto the scene and begin to wreak havoc without first learning the cultural mores of the community. The most important thing to remember is that unlike the telephone, cable and utility companies, the "information super highway" is not a monopoly and as such providers have much greater discretion in what they will or will not permit. Declining a user access to a service due to abusive behavior is not tantamount to censorship it is simply serving your customer base. If Boardwatch were to begin

featuring a writer who was so offensive to its readership that several subscribers dropped their subscription I imagine that the writer would be quickly dropped. Is this censorship? No, it is simply good business practice. The writer is welcome to go elsewhere to have his/her articles published. And a user who is denied access due to abuse has the option of going to another provider. A government by necessity must deal in absolutes and is incapable of tailoring a law for virtual communities. Just as decency is defined by community standards in the real world so must it be in the virtual communities of cyberspace. As more and more companies and individuals gain access problems will arise, but just as the flavor of a particular BBS community is determined by its members so are they best suited to determine when somebody has gone too far in exercising their freedom of expression.

Larry Starkand
lds@netcom.com

But, there still must be a way to have our children say: There are so many colors in a rainbow, There are so many colors in the morning sun. There are so many colors in the flower and I see every one. Harry Chapin: Flowers are Red

Larry:

I'm not sure I favor your analogy entirely. Not everything everyone does in this world has to be aimed at digging the final quarter out of the carpet. If we had a writer who was saying something I thought ought to be said, and it cost us a few subscribers or a few advertisers, we'd probably ride with him a ways. More deadly would be a boring one, who just nobody noticed. It's a very different game than access to an online service.

The green card fiasco was a bit overblown in my estimation, but representative. Everyone is up in arms primarily because the perpetrator was neither anonymous, nor apologetic. There are anonymous "spam" runs in USENET everyday, and everyone just shrugs it off because they don't know who's doing it and it's too much trouble to track down. For what it's worth, I thought the green card spamming was much more artfully done than most I've seen. I found the message interesting, and the advertisement discreet. But it did get blasted into a lot of newsgroups, and it was just the first one we've seen easily traceable to a business. So everyone felt effective in their indignation, whereas normally they are just frustrated in indignation. Netcom jumped in to bow and scrape and cut the guys access so they wouldn't be labelled as one of the bad guys, and all in all I find it a POOR example of what we are talking about, though probably interesting in that it is going to come up again.



Thanks for the note.

Jack Rickard

Hi Jack!

I must confess that I'm not much on this Internet thingy. As a sysop who runs a two node BBS, what am I looking at moneywise to get continual Internet areas on my system?

Cheers!

Dan Smith
Sysop, The Gay Exchange BBS, 1:153/755
(604)540-7071
Burnaby, British Columbia
CompuServe: 73737,1244

Dan:

Probably a close approximation of a good late-model car Dan. Particularly in British Columbia.

We have several mixed messages going on most of the time with regards to the Internet, and I'm just trying to write my way through it. It's an information black hole and we're going to pour stuff into it until light comes out the other end or we all find our lost airline luggage whichever comes first. Let's talk about a couple of things.

First, there are different types of Internet access. For a BBS, we break them into three tiers:

1. E-mail connectivity.
2. USENET News Groups
3. Internet Protocol connectivity

The oddity is that you get 80% of all the good to be had in an Internet connection for about 20% of the cost. You can have the OTHER 20% utility, in exchange for the other 80% of the cost.

For bulletin boards, well for everybody really, the most notable thing about the Internet is that it serves as a universal backplane for electronic mail. Anybody anywhere can send e-mail to anybody anywhere - as long as the services on both ends have connectivity to the Internet. And increasingly they do. It is my belief that there is no reason to ATTEMPT to run even a minor BBS in the future without this ability. Don't even bother. The good news is that in MOST areas, simple e-mail UUCP accounts can be had for a total cost of less than \$50 per month. And e-mail itself generates a small enough amount of traffic for that to be real.

Level 2 involves USENET News Groups. These operate much like any other shared public message conference including FidoNet echomail, ILINK, UNI'net, or others. But here too, we are seeing a conversion driven by acceptance of USENET as a universal backplane for PUBLIC messaging. I was frankly caught off guard by the acceptance of USENET on services such as America Online, CompuServe, and Delphi. The problem here for BBSs is not really access to USENET,

but rather the size of the pipe necessary to bring USENET in. It is currently running about 90 MB per day. You can't bring in 90 MB per day with a 14.4 kbps modem because there aren't that many hours in a day. For those BBSs able to afford a standing link just devoted to News, it doesn't matter, we will technically lose the ability to pipe that much "bulk freight" by modem at any cost. We see two areas of promise here, satellite delivery typically at about \$30 per month, and off on the horizon, cable TV delivery at some unknown price. Direct Broadcast TV might be an interesting wildcard. But USENET is bulk freight mass messaging.

IP connectivity is probably beyond your reach at the moment and the reach of most BBS operators. But the big BBS operators are seizing on this as a way to differentiate themselves from the small bulletin boards in a most interesting fashion. And so we are actually seeing more interest in this area than we had originally thought. Actually I should say we're seeing a collapsing time line on this as more are getting onboard faster than we would have predicted. The actual advantages of telnet and ftp access wane rather quickly on most BBS callers. After the novelty wears off, they basically still want to send e-mail where they want when they want, and read and respond to newsgroups. You can go a long while without IP connectivity and still have a significant BBS for some time to come.

Right now we are seeing an incredibly funny scene played out with the UNIX community. They have a very strange relationship to bulletin boards and it's just breaking me up. It has followed this basic dialogue:

1. Ok, bulletin boards can do e-mail, but they will never have the capacity to do USENET newsgroups because of their limited operating system.
2. Ok, ok. Bulletin boards can do e-mail and USENET, but they can never do full Internet Protocol for telnet/ftp because of their limited operating system.
3. Ok, ok, ok. Bulletin boards can do e-mail and USENET and IP for telnet and ftp, but they can't do Mosaic, Gopher, and World Wide Web because of their limited operating system.

This will continue through video, sound, multicast, and so forth off into the future apparently in a dampening echo without end. It's actually a continuation reflection of the mainframe/pc drama played out over the past 15 years.

The other factor to keep in mind is the current free-fall in connectivity prices. A full 56 KB IP link to the Internet naturally wants to be about \$60 per month. Right now you can have them from about \$300 per month to over \$7000 per month based on your location and the wishful thinking of various vendors - for the same thing. But we're covering it like a madman now because now is when the tools are forged, and there are plenty of publications to cover the historical and social aspects of all this later. We think it will be REAL important for YOU as a small BBS operator eventually. And I personally think that you'll be able to get a good pipe two years from now

in the \$60 per month range. And you'll be part of a global network of tens of thousands of interconnected bulletin boards then. When you are, I do hope you'll remember who started you thinking about it back in the early '90's.

Of course, I could be all wrong....

Jack Rickard

Jack:

The NVN War.
Wow.

As always for you can write your way into and out of everything. Congratulations, it not often that 'computer' people can actually understand and use the english language.

Say, you should write documentation or something...

jeremy
ELMONDO@PHANTOM.COM

Jeremy:

Actually I did - for about a dozen years - when it used to count. The product development cycles shortened to the point that it didn't make sense to spend anything on documentation for products that would be obsolete in nine months. As a result, the documentation got so bad that nobody could read it anymore, so nobody did. It's gone forever I fear.

Thanks for the note.

Jack Rickard

Dear Jack Rickard;

I want to write doors in RA, PCBOARD, RENEGADE, and if I can Major Galacticom. Do you know what I need to write the doors. I think I can get the required for all but Major Galacticom. I thought Major G. was made so you could not write modules for it. Can you tell me where I could possibly get the C (or other) libraries!

Sincerely,
Chad Keep(sub-zero)
JAMES.KEEP@GROTTO.ORG

Dear Chad Keep:

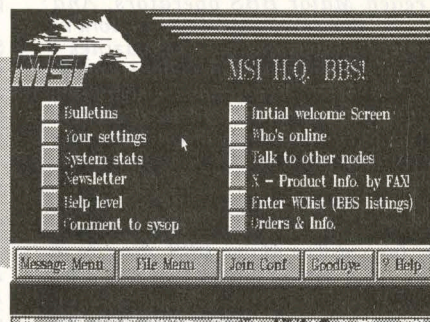
I would suggest you contact the vendors of the BBS packages directly. Actually, Galacticom, Inc., developers of The Major BBS, offer a Software Developer's Kit with reasonably good descriptions of everything you will need to develop modules for their package. As of the 6.0 version I believe, they have a .DLL architecture partly as the result of their use of the PharLap DOS extender that lends itself pretty well to third party development. They have a very active group of third-party developers.

Actually, the major hurdle to being a third party developer for any BBS platform is not so much the tools, which are generally readily available from the vendors, but rather access to the universe of potential customers. If you write a door for Major BBS, it is unlikely that a sysop running Remote Access, Synchronet, or DLX is going

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fied to buy from you. This can be quite difficult as the vendors rather jealously guard their customer lists - with good reason. Galacticomm has developed a quarterly newsletter and actively solicits advertising from their third party developers who can then reach Major BBS operators. And they've even done some experimental work in co-op advertising in other magazines - helping their third party developers cover costs there. Clark Development, Mustang Software, and eSoft all have newsletters that are developing nicely, though varying policies on advertising.

So I would advise you to contact Clark Development of PCBoard, and Galacticomm, Inc., of The Major BBS, directly to find out what sort of advice they can offer with regards to toolkits. But keep your eye on who you might sell a product to once you have one developed.

Jack Rickard

Hi Jack!

Great magazine! Now to the point.

I am writing to you to let your readers know about the epitome of bad customer service. This is a company who supposedly has great deals, but anyone who has ever had any experience with them will tell you otherwise. Zoom Telephonics, the infamous modem vendor, has been offering a 24000 external V.FC modem for quite some time. In February, I placed an order for one of these modems. When I hadn't received it by March first, I called to confirm my order. Zoom had lost the order. (Along with my credit card number and info). Thinking I could still get the modem, I faxed another order to them. My fax machine gave the error, "Receiver paper err" so I called them back. (Their office is not toll-free) They assured me that there is never a problem with their fax machine, and that mine must be broken, so I tried to send it again with not success. I finally ended up faxing the order to the secretary, who I called back and confirmed receipt.

A few days later, I called to verify the order. They told me they had experienced some delays, and the 24k's would start shipping on March 10. When I hadn't gotten it by March 20, I called them, and they told me the ship date on my modem had been pushed back to March 24th. (This is more than one month after I placed the order) Naturally, when I hadn't received it by mid-April, I called them again. (Each time I called, I had to wait at least five minutes just to get through. Sometimes I didn't get through at all) They told me that I had to speak to someone named Craig, and they (improperly, I might add) transferred me to Craig's voice mail. His voice mail informed me that 24k's were to have started shipping by the end of the first week in April. Today is April 25, and I have yet to receive the modem. It has been over two months ago that I placed the order. I called Zoom today, and they informed me that their systems were down until after closing time, and I would have to call back tomorrow. (Do I really want to do this? What happened to customer service?)

Anyway, I would appreciate it if you, or any reader out there, would look into the subject... You can call Zoom sales and

ordering at 1-800-631-3116. It is also my recommendation to avoid Zoom Telephonics and their products at all costs.

Thanks for the time and column space, Jack... Now let's get on with the rest of this great magazine.

Sincerely,
Greg Evans
Jonesborough, TN
SilvrWave@AOL.COM
Greg_Evans@f801.n3642.z1.fidonet.org

Greg:

Frankly the problem goes a little beyond customer service, and quite a bit beyond Zoom. Hayes rather blasted the entire modem business when they not only announced, but started shipping a V.FC modem last fall. The problem is that the V.34 specification has been "imminent" for nearly a year. V.FC leveled every existing modem offering in its path almost immediately. And modem vendors got to choose between rushing a V.FC modem to the front lines, and then getting to do it AGAIN a month or so later with V.34, or drop out of the play until V.34 got real.

Unfortunately, more than a few opted for a third strategy. ANNOUNCE a V.FC modem and pray that they could play a delaying game until V.34 was real and never actually have to ship any, or at least not many, that would have to be updated later. Zoom actually took orders AND money for V.FC modems at ONE BBSCON last fall, and I STILL haven't heard of ANYONE actually receiving one of these modems. They were a good deal in August, and if received by October or November would have still been a good deal. At this point, it is not a good deal, it is probably fraud. And it gives the entire modem industry a black eye.

But they haven't been alone. At least a half dozen modem companies have announced V.FC modems months ago, and never shipped a one.

Jack Rickard

Jack -

Hello. I am a SysOp that recently unveiled the power of RiP graphics to my users. Armed with only a SHAREWARE copy of DeadPaint and a set mind, I created some stunning RiP graphics that are now the main source of menus for most of my users. The reason that I am writing to you is to discuss this relatively new 'RiP' thing. My users are happy now that they can have EGA graphics which are faster than ANSi... but for me, locally, it sucks! All that I can see is ASCII characters, and computer language... are the RiP people ever going to release a file equivalent to ANSi.SYS for RiP screens? Have they? I hope that you can help with my questions...

Paul Hughes
mastermi@rushnet.com
a.k.a. MasterMind
The Happy Geek BBs -
(419) 882-1334

Paul:

That's a very interesting idea and I'm startled I didn't think of it. A RiP.SYS to

display RiP graphics? That is exactly the way to do it of course, although it might be enormous.

But no, it doesn't exist and I've heard nothing in the offing. The only relief I can point you to is Searchlight BBS. They've grabbed this RiP thing by both ears and are doing a marvelous job incorporating it into their BBS. The most significant accomplishment there is local direct video writes in RiP that allow the BBS operator to see precisely what the caller sees. Their latest 4.00 package is notable, and if you are going gaga over RiP, you might want to have a peek at this piece of BBS software.

Jack Rickard

Dear Jack:

During last Sunday's broadcast of NASCAR's Hanes 500 stock car race in Martinsville, VA, ESPN's pit reporter Dr. Jerry Punch related a touching story about a young child's offer to support Bobby Allison's unsponsored racing team. The boy, named Chris, approached Bobby and offered to give money (earned this winter from shoveling snow) to Bobby's currently unsponsored racing team. Bobby was very touched by the youngster's wonderful gesture, remarking "...if we're growing kids like Chris, this country is heading into the right direction."

Within hours, an Internet user named Pat Hayes posted a message on a Usenet newsgroup encouraging other fans to get together with him and contribute to Bobby's team. The post from Pat prompted several responses that struck a chord. Why couldn't a group of online users with a common passion and dedication for auto racing make the same type of gesture that a 6 year old boy did? Well, they can certainly try! All it takes is one good idea and a lot of good people to make an idea a reality. The online racing enthusiast community has yet to show it's strength as a recognizable force in today's electronic society. Even in 1994, many people are unaware of the magnitude of the Information Super Highway, never mind the strange letters "r.a.s.n." that represent an Internet-accessible newsgroup called rec.autos.sports.nascar. But that group and many others on services like America On Line, Prodigy and Delphi, are vibrantly alive with intelligent opinions and suggestions regarding a sport they love, auto racing.

A support effort has been organized and a bank account established where monies can be sent. "I see it as an effort of respect and dedication to auto racing" said one online user, while another user stated "We can get some publicity for a human side of the Information Superhighway," and, "We can get some warm fuzzies for ourself like 'Daddy- what did you do when the Internet was still little?'"

The sense of community among online NASCAR Fans is strong. It's a great example of how the "Information Super Highway" is coming of age, uniting NASCAR Fans around the world. The interest in this effort certainly shows the fan's respect and appreciation for the Allison team. An deep appreciation that apparently no corporate sponsor has taken advantage of. It is a hope that this one

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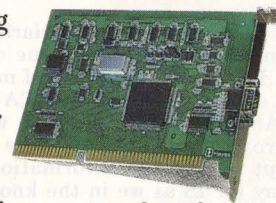
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Allison team. An deep appreciation that apparently no corporate sponsor has taken advantage of. It is a hope that this one example of the huge grass roots support the Allison team enjoys would result in securing a permanent sponsor for Allison Motorsports, as well as making people aware of the massive existence of the online world and the On Line racing communities.

Support for the Bobby Allison Motorsport Effort can be sent to:

Friends of Bobby Allison
C/O Citizens Saving Association
137 South Main Street
Taylor, PA 18517
Account # 0311027206

Roxanne Pauline
Roxanneg@Delphi.com
Pat Hayes
Phayes@tamu.edu

Pat:

The fascination with automobiles may forever escape me, but I know that it is real in that several friends share your frenzy. One of our own columnists, Jim Thompson, runs the Marlboro Racing BBS to put NASCAR race results online for sports journalists worldwide. Apparently there are more racing fans than football fans in this country, and the tv coverage is indeed getting better.

I don't know what my kids will ask me about the Internet. Currently they are preoccupied with mapping which tv shows were on the air when I was a kid and still are. The answer seems to be most of them - which strikes me as a little odd. We are apparently suffering from a LACK of TV programming?

In any event, good luck to your project and to Bobby Allison.

Jack Rickard

Dear Jack,

I must STRONGLY object to Harley Hahn's column in the April/May issue of Boardwatch. First of all, what kind of man would go on a road trip with a BEAUTIFUL WOMAN who is NOT his wife without a chaperone? And how could he possibly attempt to find the Information Superhighway (or IS as we in the know call it) without directions or even a MAP?

Then he goes on to rant about a high level Government Official leaving his laptop unattended in a room. I often forget to close my checking program when going out to lunch, and even though I can ill afford the \$75,000 loss over the last few years I hardly think that I should be considered an idiot.

He also rails on about the Clipper Chip and The Government having access to all of our passwords. What if I should forget my super-secret password (doink)? I use this password in all of my network accounts. I would be out of business if I were to forget doink. I, for one, would be glad to know that I could call one of hundreds (maybe thousands) of clerks in Washington to get this secret password back.

Moving along, Mr. Hahn also whines about government intervention on the Internet (IS). You may not believe this but the other night I was surfing the IS and all of a sudden the 'F' word appeared on my monitor. I was so taken aback that I rebooted my computer in a disorderly manner and was rewarded with a Windows 'UAE'. I can only thank God that this didn't happen on my Mac or I surely would have been visited by a 'sad face' the next time I started it. Surely some Government Control would prevent this sort of thing.

Finally, I can't understand why Mr. Hahn doubts the government's ability to take matters in hand in regulating the Internet. Look at the way the government handled Viet Nam, Somalia, the Drug War and the Serbian situation. How can anyone question a track record like that?

In closing I would like to say that I am not being serious and that subscribing to Boardwatch and having Harley Hahn as a contributing writer has changed my networking ways forever. Harley's books on UNIX and the Internet have taken the fog off the road for me. Thank you both.

Frank J. Santeramo
fsantera@nyx.cs.du.edu or
doink@delphi.com

P.S. I don't use a MAC or Windows. Harley, thanks for the resources. I knew that you would give us that.

Mr. Santeramo:

Well, you bring up some very interesting questions and make some profound points. I hadn't ever looked at it quite like that.

Jack Rickard

Dear Mr. Rickard:

Would you be so kind to publish this press release.

Grant-Us, Inc. is a non-profit organization established on Guam. The purpose of our organisation is to enable the handicapped to become self-reliant. We believe the computer is the equalizer that allows for worldwide communication of information and employment for all members of society.

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INTERNET: cwb@kuentos.guam.net

Dear Mr. Bell:

I am not normally so kind. On a whim, I'll make an exception. I believe all that stuff too.

Jack Rickard

Dear Jack:

In the past, I've run across two very worthwhile Internet resources in the alt.internet.services Usenet newsgroup that are worth sharing. You might be aware of them but there's a good chance your readers are not. I'll save you the work here.

SPECIAL INTERNET CONNECTIONS (loosely known as the "Yanoff List") compiled by Scott Yanoff [yanoff@csd4.csd.uwm.edu] is mentioned frequently in the new invasion of "how-to" Internet books. It is truly a gem of a resource and will help the curious novice navigate the Information Go-Cart Track. Chess servers, FAX via Internet, Ham radio callbooks & earthquake information are just some of the diverse places-to-go listed. It can be retrieved by FTP: [\(pub/inet.services.txt\)](ftp:ftp.csd.uwm.edu(pub/inet.services.txt)) & Usenet: alt.internet.services, comp.answers & biz.comp.services to name a few.

FINGER yanoff@csd4.csd.uwm.edu will show you all ways to obtain it. The next resource I found is listed too.

THE INTERNET MALL: SHOPPING ON THE INFORMATION HIGHWAY is a list maintained by Dave Taylor [taylor@netcom.com]. It is sure to cater to the new breed of commercial Net users. Stores are arranged by departments and floors. Everything from perfume to books on C can be purchased without leaving your hunchbacked state. Anyone with Internet e-Mail access can obtain it by e-mail: taylor@netcom.com with a subject of **send mall**.

FINGER taylor@netcom.com will show you all ways to locate this on-line shopper's guide.

Stephen Durfee, Allegro Computer Services
allegro@mercury.interpath.net

- will read and reply to e-Mail for a slice of pizza.

Stephen:

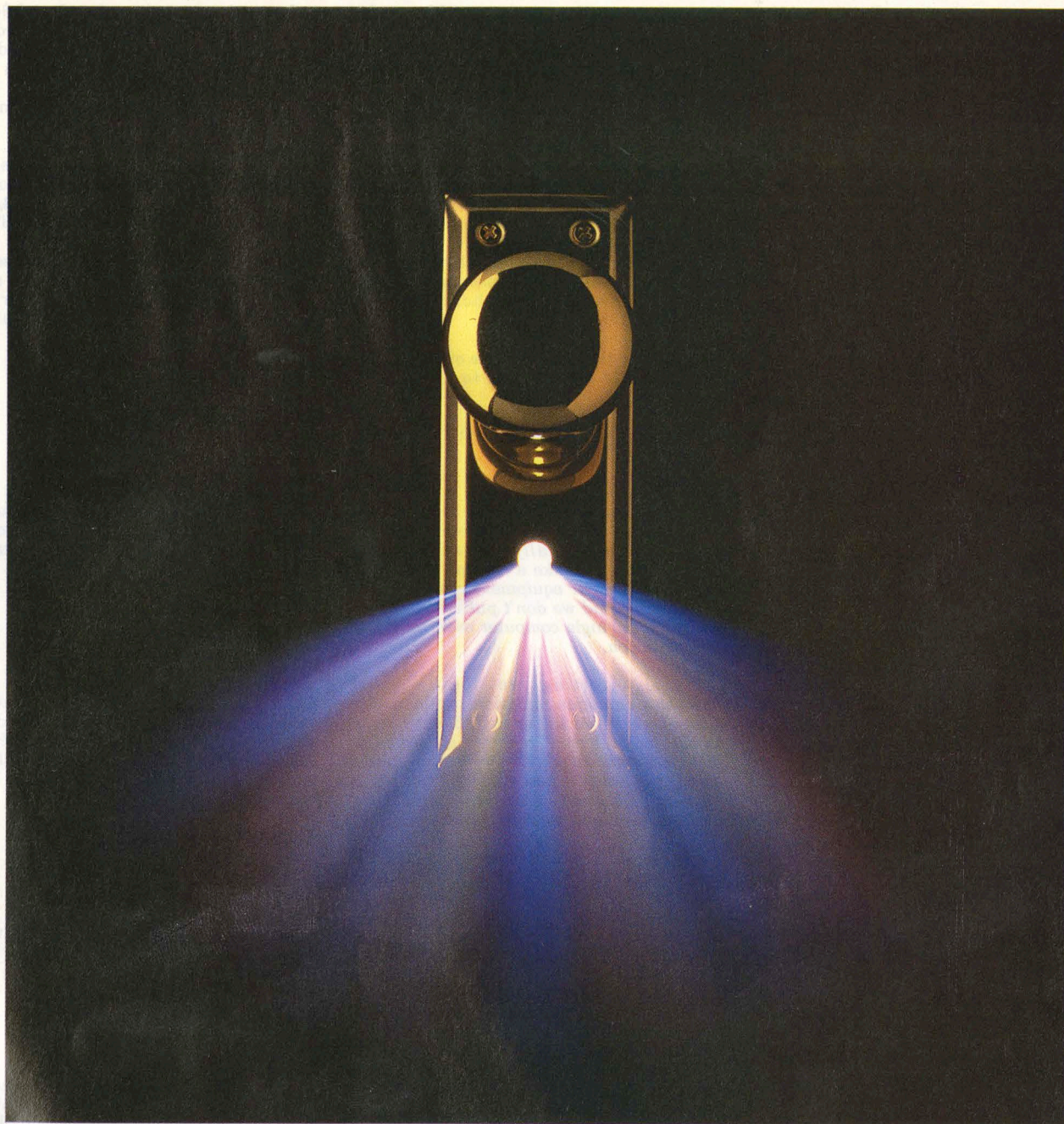
Thanks for sharing these resources. I was familiar with the Yanoff list, but the shopping reference is news.

Jack Rickard

Dear Jack,

I have been an avid reader of Boardwatch magazine ever since I became a user of computer bulletin boards. However, it has been most useful to me from the moment I became a System Operator for the Federal Aviation Administration (FAA) in Washington, DC. The BBS I operate for the FAA provides access to public affairs press releases, civil penalty notices, legal interpretations, and speeches of the Administrator and Deputy Administrator. The board also carries the electronic version of FAA's safety magazine, "FAA Aviation News."

In the most recent edition of "Boardwatch," I noticed a listing for the FAA's Orlando Flight Service District Office BBS, operated by Bill Hoenstein. This prompted me to send off this e-mail along with an attached



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ascii file listing all of the FAA's public access BBSes. This file also contains the names, phone numbers and a brief description of other federal government, aviation related, BBSes as well as one aviation related BBS operated by the Canadian government and several other BBSes operated by aviation industry special interest groups.

As a public service to the readers of "Boardwatch" who are pilots or are associated with the aviation industry in varying capacities, I would like to see these boards' phone numbers added to the "Boardwatch" National List of Electronic Bulletin Boards and Online Information Services. I would also like to point out that the FAA's Washington based boards and those with 800 service access numbers are accessible through the Internet via the **Fed World BBS (703)321-8020** gateway. Fed World BBS can be accessed via telnet at **FEDWORLD.GOV (192.239.92.201)**

Best Regards,
Michael L. Lee, SysOp,
FAA HQ BBS (202)267-5697
mlee@hq.faa.gov
lee3961@delphi.com

Dear Michael:

Thanks both for the letter, and the attached list, too lengthy to include in the letters section. We'll make what list additions we can, and try to schedule publication of the entire list for a future issue. It is indeed interesting information, and I assume obtainable from your FAA HQ BBS.

Jack Rickard

Dear Jack,

I've been reading BOARDWATCH for a while now, and I have noticed that (it seems) none of the BBS dealers have an amateur radio interface/door for packet radio mail. I am thinking about starting a BBS, and would like to integrate it with my new interest in HAM. I know that there are BBS's specifically for packet, and there are phone BBS's a-plenty, but are there any that combine the best of these two worlds? Thanx 4 your time.

Best regards,
Scott Verville
TS300@AOL.com

Scott:

I'm not sure, but I think the whole country is networked with packet BBS systems. I can point you a couple of different directions at once which will probably be a little less than useful, but here goes. Why don't you call the **N8EMR Ham BBS** in Westerville Ohio at **(614)895-2553**. Gary Sanders used to run this and was pretty knowledgeable as I recall. As to vendors, WWIV I think had its start at least related to that arena. They should be in our list of BBS vendors in the back of the book. There is also a fascinating freeware package floating around that does the AX.25 thing AND has a full TCP/IP stack in it called KA9Q.

Jack Rickard

Hi Jack!

I was just reading your April/May 1994 issue, and I noticed in the letters column that you are having problems with connecting OS/2 to a Novell and TCP/IP LAN. I myself am currently running OS/2 2.1 at work. I have both Novell and TCP/IP connectivity established. Both went in pretty much like a charm. The biggest nit I have to pick with it is that the Novell software supports the NE2000 but not the WD8003E, and the IBM TCP/IP software supports the WD8003E but not the NE2000! Here we have the two most popular ethernet boards, and the support is exclusive between the two packages!! ARG!! So I have two ethernet boards in my machine.

So if you would like to tell me of your problems, I would be very glad to help sort it out.

BMILLER@MSMAIL.RADISYS.COM

Mr. Miller:

I certainly would not. Anybody that believes that having two packages from the same vendor with mutually exclusive driver support "went in like a charm" would not be allowed in our equipment room even to visit <gr>. And we don't put two ethernet boards in a single computer even to watch the confusion.

This is getting to be a real information/communication problem. My idea of what "works" or is viable and some of the "no problemo" reports I get from the field just don't match very well. Some days I think I'm losing it and we really can run 9 lines at high speed under Windows. I guess it depends on how we define success.

In any event, thanks for the generous offer of assistance. We'll cobble something together.

Jack Rickard

Dear Jack,

In reference to Rich Kurtz's letter in the March edition of Boardwatch concerning his efforts to find a way to allow users to charge BBS registrations, I just have to share a feature I use on my BBS that was an answer to his problem!

A company in Knoxville, Tennessee, called InteSys, Inc. has developed a system for sysops to accept online charges using MasterCard, VISA, or Discover cards. They have a door program called "InteCharge" which works with most BBS "Drop files" (RBBS, QBBS, PC BOARD, WILDCAT, etc.). The principle is that a caller enters the door and selects the charge (which could be BBS or even software registration). The program creates a charge file, which the sysop uploads to InteSys BBS at least weekly. At the end of the month, the sysop receives a check for all the charges processed during that period. Its simple, and it even supports upgrading security levels for PC Board and WILDCAT!

Of course, not all things are free :(InteSys charges 14.19% on each transaction. The documentation claims that on a \$24.00 charge, the sysop will receive a check for \$20.60, with the remaining \$3.40 to be paid to them as a processing fee. Also the door

software has a registration fee of \$49.00, which can be pro-rated and subtracted from processed charges. Overall its a good deal. The door is professional, the folks there processed my orders regularly, and if you have a front end mailer, you can even automate your sending of charges.

You can contact them at: InteSys, Inc., 6504 Deane Hill Drive, Suite C., Knoxville, TN 37921; BBS:(615)690-2227/0424/0428, FAX:(615)691-5381, Voice: (615)690-8735

And if you decide to subscribe to the service, make sure you mention my name, as sysops who process registration for the InteCharge receive a \$5.00 (or 10%) credit ;)

Dan Elder, Sysop
National Data Exchange BBS
71514.3423@COMPUSERVE.COM

Dan:

It sounds like a mess to me. But if it works for you, good luck with it. I still have to believe if you guys would actually go in to the bank and talk with them, it's just not that difficult.

Jack Rickard

Jack,

Excellent response to the "What the hell is NVN" letters. It never ceases to amaze me what a group will do when they do not receive the recognition that THINK they deserve. I tip my hat to you for both your honesty and sincerity, but then again I am a member of the COAD group myself.

Gary Noles
eobytes!gnoles@vulcan.com

Gary:

Well, as we say at the meetings, the first step toward recovery is admitting we have a COAD problem.

Jack Rickard

Dear Jack:

I saw the letter from Luis Sala of MiniComp Systems BBS in Puerto Rico in the May issue of Boardwatch. I got an E Mail off to him hoping to exchange BBS lists... in fact I would like to see a list for all of Latin America... maybe this letter will spark a response as your magazine is read and reread all the way down to Patagonia 'of all places'.

We are all enthusiastic BBSers down here as witness the response to the COMP.BBS.TBBS proposal and CAN find Boardwatch on the local newstands.

Robert E. Cooke
robert.cooke@ccxbbs.uunet.ve
BBS (582) 9522259 9526992 9532008
9532720 Fax (582) 9512486
Voice (582) 9511218 9512469
Caracas Computer Exchange BBS. PO Box 6656 Caracas 1010A Venezuela

Robert:

Well, we'd sure welcome a Latin America BBS list here at Boardwatch if you can put something together.

Jack Rickard

Hi Jack,

I am sitting at the Royal Show in Pietermaritzburg Natal R.S.A.

As mentioned in a previous message we are running Live demo's of BBS's here in S.A. as well as this LIVE INTERNET access which has kindly been provided by TICSAs our Internet provider here in South Africa. I think that this is the first time that this type of facility has been provided at a public function open to the Public.

Sad to say much of our general public here are very naive and ignorant as far as the online world is concerned, and much of the significance of what is happening here is lost on them. BUT what the hell one has to start somewhere, so have been handing out Internet pamphlets like crazy.

As I am sure happens in American shows of this nature I am being assaulted by Sound Blasters and Multi-Media from all directions as well as having just about lost my voice.

I know that * Hilary and Al Gore * are here at this time for the inauguration of our new President so hopefully we will see movement from this part of the World for better Data-Highway facilities.

All the best from this end of the World as we PIPE the new captain aboard.

MY STANDARD E-Mail addresses apply as this is a temporary facility

chris.moore@netline.co.za
Cheers Chris.

Chris:

Thanks for the note and pleased to hear of further networking in the Republic of South Africa. Bringing PC communications to the as yet unlearned is a vocation, and one I share, despite the frustrations.

Jack Rickard

Dear Mr. Rickard

First, I have to say that I am VERY impressed with your magazine. Since I have began reading it, My BBS knowledge has increased greatly, I found out about stuff that I never new existed. You have helped me greatly. Second, I am a 16 Year old BBS operator, and I have had several people tell me that it is ILLEGAL for me to run my BBS simply because of my age. I can't see why it should be if I have nothing Adult or Illegal. Could you enlighten me on this subject?

Thanks Alot,
Len Steinmeier
lennys135@aol.com

Len:

To my knowledge, it is completely legal in all 50 states, Puerto Rico, and the Virgin Islands, to operate a BBS even if you are a houseplant, can't spell, and have yet to reach the age of full potty training. Extant are probably hundreds of examples of actual bulletin boards I believe to fall under those parameters today.

There are no age restrictions on BBS operation or use. Someone is blowing cybersmoke up your infokirt.

Jack Rickard

Jack,

I see that once again you've taken my name in vain, mentioning that it was I who "caused the letters section". First of all, a couple of corrections: There's no "e" before the "y" in "Dunmyer", and I'm a Mid-western German, not Dutchman. Minor nits, to be sure. On a personal note, a long-lost cousin from Baltimore, MD saw your mention of my name, decided that it must be me, and called. It's nice to be in touch with him again after 20+ years!

I well remember our conversation at the 1990 FidoCon in New Jersey, where you seemed incredulous that anyone would read an L2E section; I was equally amazed that you considered it superflous. It really tickles me that you tried it, although as David Hudson mentioned, the success of the BoardWatch L2E section is entirely due to *you*.

Speaking of the FidoCon, it's a LONG way from 1990 and 130 or so attendees at that event to this year's ONE BBSCON. If you merely double last year's attendance, we'll see 4000 people in Atlanta! All of us in the online community owe you more than most of us know.

On a couple of other subjects: You mentioned Alan Bryant's book, "Operating Successful Bulletin Board Systems" in your answer to a letter from Eric Nadelberg. I've obtained and read that book recently and feel that any sysop or wannabe absolutely MUST have it on his shelf. Like you, Alan has the unique opportunity of being in constant contact with *many* sysops, all over the world. He has observed what works and what doesn't, and his succinct writing imparts those observations to the reader. There are many lessons to be learned from Alan, whether you're running a pure hobby board, entrepreneurial BBS, or corporate support system.

And lastly: Why is it that my copy of Boardwatch magazine is as much as a week later in arrival than many others? My cousin, mentioned above, called me several days before my copy arrived in Temperance, MI, and it is usual that I hear mention of things "in the latest Boardwatch" a week or more before I can read it. Of the many magazines that I subscribe to, Boardwatch is one of the most-anticipated each month, and I'd like to be able to enjoy it at the same time as the rest of the country. (When it arrived, the front cover was torn completely off; the Feds want us to trust them with our health care, too?)

Once again, I'm looking forward to seeing you and all the others at this year's ONE

BBSCON. Thanks so much for the invitation!!

Jim Dunmyer
Toledo's TBBS 313-854-6001,
419-475-2241
jim.dunmyer@toltbbs.com
Fido 1:234/2

Jim:

Sorry about the misspelling. We do dig your copy out and hold it specifically hoping to delay the rumbles from Toledo for a few days each month. Actually, the mail service is as much a mystery to me as to you. As to the cover, there have been some serious and ongoing complaints about lost covers. We tried having it glued on for the June issue and that seemed to help. But I think we're going to go to some sort of outside wrapper in future issues for the subscription mailings in an attempt to survive the rough handling.

Again, our letters section seems to have taken on a life of its own. I was wrong and you were right. And we're a better Boardwatch thereby.

Thanks

Jack Rickard

Dear Jack —

Sorry for the delay in replying to your April/May editorial. Maybe the USPS thought it would be only fair to deliver my magazine to a house two streets away since I routinely get their mail. Perhaps the mail-lister who wrote "some kind of maroon" really is dyslexic, I don't know. I'd like to say my interest in that particular phrase is academic since I was a linguistics graduate student in Boulder for a couple of years, but the truth is a little less respectable.

I spent a good many hours of my west-Denver boyhood watching Bugs Bunny. For me, his signature phrase isn't "Ehhh, what's up, Doc?" but rather "What a maroon!"

I see it as a symbol of the cynicism, sarcasm, and occasional blatant ignorance that I loathed in myself during a decade or more of socially inept near-nerdhood. How I managed to have sex with a live female before the age of 30 is a mystery I can only explain by breadth of education, including learning to play an instrument. Musical instrument, that is, in orchestras.

I'm glad to say that even though I'm employed by a three-letter computer company and run a tiny BBS in Colorado Springs (with ancient software and obsolete hardware), I'm a socially useful citizen who enjoys helping other people.

I've located resources for people who have dialed in at 1200 and 2400 bps, gone to friends' houses to install or troubleshoot computer and phone equipment ... and now I've told you about the word "maroon."
<G>

Ciao for now.

— Ed Dahlgren
Swede's Trading Post

Ed:

Before 30? A musical instrument? Tell me more...

Jack Rickard

Dear Editor,

I've been an avid fan of your mag since I first picked it up at a newsstand last August. While I don't agree with you on some issues, I find your reportage for the most part incisive and thoughtful. I hope that you, Lance Rose, Jim Warren, and John Dvorak keep up the good work. I also like the articles by Bernard Aboba and Kevin Savetz.

Re: the Philippines and the Net... I don't know if it has been reported yet in your magazine, but a 64 kbps leased line to the Internet has been in operation since March 29, 1994. This happened during an electronic mail seminar being conducted by Dr. John Brule at the University of San Carlos, Cebu City. Full scale operation has been bogged down by disputes over ownership of the .PH domain (top level domain for the Philippines). Maybe your intrepid inter-nauting journalists could ask around regarding this?

Thanks, and more power to Boardwatch!

Cito Maramba
Quezon City,
Philippines.
6:751/399, Inner Sanctum of San Juan
Philippines

Cito:

No I hadn't heard that at all. Exciting news. My wife is from a little bit of a town called Catmon about 35 kilometers north of there. I'll try to find out what's happening with the .PH domain and the University of San Carlos.

Thanks for the timely tip.

Jack Rickard

Letter to the Editor

Well, Jack, You've done it again. I refer to your editorial in the June issue of Boardwatch. It's largely for your editorials and letters column that I subscribe to your magazine. (Of course, the fact that the rest is the best resource for general BBS hardware/software/news/etc. doesn't hurt.)

Since 1970 I've been predicting the overthrow of the American government in the year 2015 plus or minus 10 years. In 1970, people said I was nuts. Today they argue with me about the date and usually predict an earlier date than mine. While the collapse of the empire is clearly happening, most of us still "have it too good" to risk it all on a revolution.

I see two major problems here that I hope will receive some attention soon. First is the question of who will take power after the overthrow? At this time the most likely candidate seems to be the radical religious right. I think I like the present crooks

better. (Gak! wash my mouth with soap! What a choice!)

The second problem is more global. We were lucky to have a planet with lots of natural resources. We've used up all of the easily tapped resources and much, if not most, of the raw materials buried deep inside. If we can expand society into space while we have the technology to do so, we will be able to access limitless solar energy, raw materials enough to build a planet (the remains of a planet, nicely carved into bite size pieces in the asteroid belt) and plenty of room to work. We will then be able to remain a prosperous and growing society for some time to come. If we don't get established in space within the next fifty years or so, we will no longer have the raw materials to do so and the planet will probably sink back to a non-technological status forever more. I see the American Revolution II as a major impediment to our colonization of space. It will waste lives, resources, and time that we don't have to spare.

It is of vital importance, in my opinion, to seek ways to prevent the need for AR2. The only solution I can see is for more people to write and expose the problems (and solutions.) More people need to read them. More need to talk to their neighbors and get everyone roused up at the grass roots level. Next we need to run for office and help push the campaigns of those whom we feel are honest and trustworthy. The government isn't going to solve this for us. We can't just have our legislators pass more laws. We're going to have to get off our collective butts and actually do some work if we want to return to a "land of the free." TANSTAAFL! Thanks Jack, for your significant contribution in the right direction. Keep up the good work.

Valerie Kramer
73455.1205@Compuserv.com

Valerie:

In a nation of 250 million individuals, the pendulum swings with an awe inspiring mass if underwhelming velocity. I do think we're skidding toward a new leftist totalitarian nightmare, but it is true that the nature of the American people can be a bit volatile. And if the pendulum does swing the other way, I fear it will do so with an energy that leaves an enormous opening for demagoguery. Unfortunately, that rarely leads to greater individual liberty either - as you point out.

As to our planet's resources, I would urge you to do some primary research first hand. We have "untapped resources" beyond our capacity to catalog, and immense opportunities to use it more efficiently. There's enough energy in a gram of seawater to run a city. And contrary to your assertion and the pop-science of the environmental earth worshippers, the planet is abundant to the point of absurdity. Planet earth is the seedbed for a universe, and we'll get there soon enough. I don't personally think getting there is the big challenge. We've been. We are. But it's very big, and we need tools adequate to the task once we are there. Like computers - and communications.

Further as you point out, if we do have a revolution, it wouldn't be the first.

Jack Rickard

Dear Jack,

I would like to get your opinion on a subject similar to one you commented on in your April/May 1994 issue. You mentioned that you do not recommend submitting articles by electronic mail unless it is followed up by a "Hard" copy. What are your feelings on electronic catalogs?

I am just starting to sell used sci-fi / fantasy books by mail, and I would like to use the Internet to increase my business. Being able to send my catalog via electronic mail would be a great convenience for both myself and the customer, but I do not know if this would be frowned upon. Do I do as you suggest with article submission and follow up with a "Hard" copy, send only an e-mail copy or should I just stick with sending a catalog via snail mail?

I also realize a catalog can be quite bulky on the receiving end and take quite a bit of time downloading. If I were to send one via electronic mail, should I make it smaller and more frequent so the receiver can manage it better, or is a normal size (about 350 items) still workable? I have not been able to get a definite answer from anyone.

Any input would be appreciated.

Yours in Books,
Jon Snurka
Haunted Keep Books
JMSnurka@HauntedK.com

Jon:

One of the things we're seeing done really quite well is catalogs. But they aren't sent at all.

Retail stores, and to some degree catalog stores, have to maintain a certain inventory of things they make available for sale. For example, the typical music store offers 15,000-20,000 CD disk titles. Offering more obscure titles simply doesn't make economic sense as they cost the same, have the same overhead to stock, and don't sell as well.

Yet we're seeing "Internet stores" that offer 80,000 titles, and don't actually stock any of them. A database allows callers to connect, and search for titles by artist, by title, by collection, or by distributor. The item of interest is dug out of an immense number of possibles, and presented on screen in a heartbeat. They order it, and receive it delivered to their home in less than a week.

The advantages don't stop with huge selections and no inventories. The customer does all the data entry to make the sale happen. The computer even prints out the shipping labels, invoices, clears the credit card charges, and so forth. This eliminates the labor cost of taking the order, one of the biggest chunks in mail order.

So I would encourage you to rethink the whole concept of a "catalog online" as not being something a caller downloads, but rather something they dial or telnet into. And once they are a customer, yes, I would mail out a quarterly document of some kind with four color printing and the works to remind them of where you are, what you offer, some current items of special interest,

and how easy it is to order from the full selection. And yes, that would be on paper, put in their street mail box.

Jack Rickard

Dear Jack,

Please understand that I am not writing this letter to see my writing in print in your magazine (a magazine which I truly love, for both the content of the articles and the character of Editor/Publisher). You stated your prediction of "the failure of PowerPC and the bankruptcy or sale of Apple Computer Corporation within 36 months" in the June 1994 issue, but in the same response gave a recipe for their salvation.

Isn't it a little premature to predict demise if the choice to make PC clones is all they would need to do to survive? :-)

On a little scarier note, look what we might have to look forward to in the PC industry if Apple fails? They made popular much of what is taken for granted (by some) in the industry: easy set-up, SCSI, decent sound output, decent sound input, built-in video, high quality graphics and the related graphical user interface, plus others I've not listed. Let me be careful to explain that I am not saying Apple invented these things, or even pioneered them - merely that they popularized or greatly improved the visibility of these innovative technologies (yes, so did Commodore, Atari, and others - but Apple has maintained their reputation for innovation).

Look for example at self configuring slots. Apple, when they opted for NuBus over a (by that time) much more standard ISA bus for the Macintosh II computer, mated an expansion bus with their operating system in such a way that a user almost never need worry about in which slot a card is placed. Installation is totally transparent to the operation of the computer and no configuration utility (as in Micro Channel) or dip switch setting is needed. It is only over the past several months that "Plug and Play" has become a catch phrase in the PC side (thanks to Compaq and Microsoft). PCMCIA could work this way, but in practice often fails miserably.

Without Apple popularizing the innovations, can we expect some other company to come in and introduce those sorts of changes to the market? I don't believe the other big computer companies or software companies would be interested in it - besides, Microsoft (the most likely leader) doesn't lead; it steers :-)

The loss of Apple could be a dark day; it would take an awful lot of faith to think otherwise.

Thanks for a great magazine. And please accept (with good humor) the following:

Dittos, Jack

Jeff Hexter
Administrator of Small Business Connects,
jeffhex@aol.com

Dear Jeff:

All you say is true, more or less. And it's persuaded me to revise my estimate, now that we're a month later, to 35 months.

I thought the Victor 9000 was a GREAT computer.

Jack Rickard

Dear Jack,

I enjoy reading your magazine- one of a kind!

I have some questions for you pertaining to the on line news services provided by CompuServe and others.

Does one ever get to view a nicely formatted display page which LOOKS like a newspaper with photos, captions, headlines, etc? OR do you get the regular computer type ASCII copy?

I'm wondering if ANY of the services offer a newspaper with a pleasing appearance which looks like a real newspaper?

If you know of any please let me know.

Thank you in advance.

Sincerely,
Georg Kochi
GKochi@ACC.OR.JP

Georg:

Not. But Ziff-Davis is introducing a new service this fall titled Interchange with a Windows interface, photo-realistic graphics, and fonts that will look quite like your newspaper, and in fact the Washington Post has already signed on to publish on this new platform. I found it a bit intriguing and I think many traditional publishers will as well.

Jack Rickard

Dear Jack,

At the risk of my letter being censored or truncated by the government, I had to tell you that I agree with your editorial 100%. (June 1994) The entire country is under siege by hoodlums. We all complain about the crime situation to each other at our water coolers at work, and our legislators waste time debating Mrs. Clinton's hog futures. I do not care, at all, if Mrs. Clinton made a killing in the commodities market! God bless her. I want her investment advice.

The public is up in arms over victim's rights and we get legislation passed for a plethora of other matters! (spotted owls & snail darter's rights) Now we prosecute and convict a honest man for selling cd-rom disks that are available just about everywhere, because it is, allegedly, obscene. I once saw a tagline in a message I received that said, "Obscenity is what ever gives the judge an erection." I guess it is true, all wisdom DOES come from taglines. (grin)

Please give the name of Luther Campbell's (of TWO LIVE CREW) attorney to Mr. Davis, as he needs him! It is now ok in Florida to tell you in public, or on CD, to have a sexual relationship with yourself and question the marital status of your parents at the time of your birth, but... I can't

download or purchase a picture of a talented lady and her dog!!!

Go figure.

Joe Dorsey
Ft. Lauderdale, Florida
70323.2116@compuserve.com
Joe:

I rather do care about hog futures - cattle futures actually. There was a concept years ago, much in favor at the time, involving a term called "leadership." It referred to individuals of character who were reliably honest, credible, respected and admired by their peers, and had a vision for the future attractive to individuals everywhere and our nation as a whole. They pointed the way to our destiny and inspired us to emulate them, and yes follow them, to achieve various notable goals as a group.

If as a society we accept leaders who don't offer those qualities, but rather become the butt of humorous asides noting their lack of honesty, credibility, and trustworthiness, then we slide into a cynical world that speaks poorly of our ability to select leaders, or thrive as a group. This lack of respect for ourselves and our destiny, allows crime, hoodlums, and bureaucratic shenanigans to blossom. So I very much see the Mr and Mrs. Clinton, and the problems you cite, all in one basket if you will.

I do agree that the Tony Davis case is a travesty and a crime.

Jack Rickard

Jack,

I would like to take a moment of your time and thank you for publishing such a wonderful magazine. I've recently entered the world of BBSing and have found your magazine to be extremely entertaining and informative. Like some of your other readers, I am seriously considering starting up my BBS and have been searching for any literature that will help me. The book reviews that were done in the June issue probably saved me about \$60 and a lot of wasted time. I thought I was clever because I dialed into CompuServe and ordered "The BBS Construction Kit" before it hit my local book store. When I read your review of the book, I new I had been too clever. I think I'll wait until I see a write up in Boardwatch before I order the latest and greatest BBS-Made-Simple book.

Ron Kurr
72470.764@compuserve.com

Ron:

Very pleased you find our efforts worthwhile. Since we can't compile everything everyone wants to know all in one issue of Boardwatch, we do try to keep a sharp eye out for the good books that seem timely, informative, and on topic. Recently, they have become quite the publishing fad, with good opportunities for a few good books, and a grand procession of really very bad ones. Separating the wheat from the chaff can be a bit time consuming, but we'll do what we can.

Jack Rickard

Jack:

Great editorial on Tony Davis case. Written with passion. You write well in any case, but this editorial essay has a compelling urgency to it that makes it your best yet. You care. It shows.

So what are we to do? Vote for small-government, low-tax candidates and try to be as happy as possible with our families and friends outside the money economy...

If possible...

Bye for now.

CLEMENT M. OGDEN

Clement:

It's a terrifyingly accurate question. And I don't have an answer. But, yes, I would find small-government candidates dedicated to the preservation of the United States Constitution, individual liberties, and a free market economy both unusual and attractive. Given the inherent organizational abilities of this communications technology, it is puzzling that we seem so helpless in the face of it all.

Jack Rickard

Jack,

You are one of the few sane presences in bbsland. God bless you for that editorial in the current issue.

I know, you got hot and have had irresolutes chomping on your butt. Ignore the silly little twits.

Law school does two things: it gives you a new appreciation of that old adage "No good deed goes unpunished", and it teaches you the Golden Rule: Those who have it do. But to address the issue as to our country:

This is not and never has been a "democracy". Witness, as a few examples, the electoral college, the grand jury, and the fact that government entities may, if they find a complacent "magistrate" (definition here is extremely spotty), obtain a "legal" search warrant, probably improperly drawn but you gotta spend \$100K or so to prove it, and empty your homestead of whatever they (the seizers) consider included (in said "warrant").

This is what happened to the OKC guy. Maybe the puritanical bloody zealots will act again?

The lowest grades in law school go into guvment work. And the politically aspirant. Sweet jesu save us. Ignoramuses wearing the cloak of guvment will be the death of the body politic.

Thank you for that excellent piece of work. Hang it all out, Jack. You have at least one supporter here in Ouchtown. Probably more!

d.b.dews@camel.com

as u kan tel austin tx camel's back bbs

D.B.

Thank you. I need all the supporters I can get. I'm running for editor again this term you know.

Jack Rickard

Dear Jack,

As a Excalibur sysop, I've been waiting patiently for you to mention Excalibur in your publication. I was a bit disappointed at the mere paragraph devoted to this great windows BBS software in your June addition.

I've been a beta tester for Excalibur for over six months, and although the software has had its share of problems, I've found it to perform on par with many commercial packages that I've experienced in my area. AT last count, there are over 1,000 Excalibur sites in the world. Not bad considering its still in its beta development phase.

If you'd like to give Excalibur another try, give my BBS a try. The Round Table Communications BBS can be reached at (717)-227-9606. I'm sure you'll like what you see!

Frank Lynch

Sysop, The Round Table Communications BBS

P.S. I'm glad your magazine recognized the wonderful job that Adam and Sara Viener have done with their BBS, Cyberia (just up the road from The Round Table)

Frank:

We're planning a closer look at Excalibur quite soon actually. It does actually have one of the best interfaces we've seen, but some of the claims of performance under Windows sound a bit overblown. We intend to see.

Jack Rickard

Dear Jack:

After reading Editor's Notes in the June issue of BoardWatch, I couldn't believe my eyes! Tony Davis makes his attempt at the "American Dream" and gets arrested for it. He wasn't hurting anyone...He was merely distributing adult material composed of graphics of consenting adults, to consenting adults...

It's not like his goal was to tarnish the youth of America. If any of the images on the CD's were of illegal acts (Beastiality or child porn) then the illegal material should be removed from the collected files & the CD released without the illegal material.

Still, it is crazy that a murderer or violent offender receives a lesser punishment than a software distributor.

I have 3 questions (not related to the comment above):

1 - I enjoyed your review on BBS books, I'd like to know if you have (or plan to) review books on telecommunications in general (like "Your first modem" or "Modems for Dummies")?

2 - Can you recommend a good quality RIP &/or ANSI paint program to draw/view RIP or ANSI graphics?

3 - In letters to the Editor Valeri Kramer asked for the E-mail addresses of anyone

important. How about listing some computer-oriented E-Mail Addresses? (Software Manufacturers, Computer Magazines, etc?)

Just a thought,

Scott Verity

Scott:

1. Perhaps. We rather select books on the basis of our growing admiration of them, rather than on any topical theme. Most of the modem books for novices seem poorly done and condescending, and do little to make anything simpler beyond simply leaving things out. Simplification in communication does not actually imply gross omissions or chummy tone. It's hard work. If someone will do one, we'll review it.

2. I use a shareware program titled THEDRAW occasionally to do ANSI graphics. I've seen no RIP drawing program yet that is even minimally competent, although I have heard rumors of one.

3. Scott - look through this issue. It's reeking with computer-oriented e-mail addresses. You can connect yourself into a migraine headache from this issue alone, and we do one every month.

Jack Rickard

Dear Jack,

Thanks from all the employees of International Test Corporation to John Dvorak and his Tex-Mex Four Bean Chili recipe which appeared in your April/May 1994 issue. The boss, a regular subscriber to your magazine, proclaimed Chili Day at ITC and funded our effort to recreate your prize-winning recipe for our office lunch today. Everyone declared the chili the best ever tasted!

Our only thought is: what did we miss by not using the recommended Grandma's chili powder and where can we get it?

Doris Tobias

International Test Corporation
Hunt Valley, Maryland

Doris:

I first tasted John's Four-Bean at the MicroGrafx Chili Cookoff at fall COMDEX several years ago. Yeah, you really need Grandma's powder I think - but a close approximation would likely still be good. I suspect Grandma's is a kind of western regional brand but I'll look around. Very pleased it was a hit at ITC.

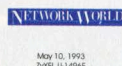
I'm rather engaged by the concept of a computer magazine publishing recipes alongside batch files.

Jack Rickard

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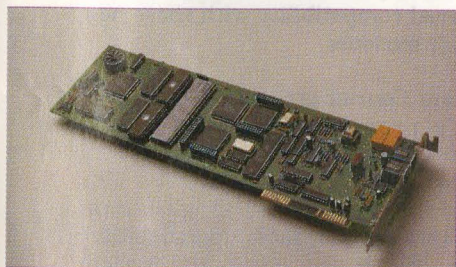
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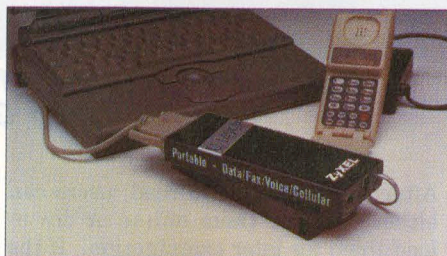
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Special SysOp Price
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U-1496P

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Allows users to record and play back voice mail messages easily and effectively with superior voice quality.

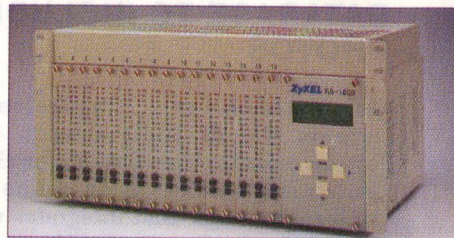
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U-1496R - Rackmount Modem Card

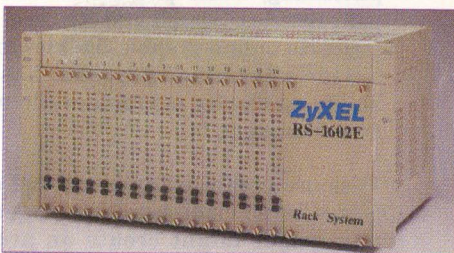
- ◆ 19.2Kbps Data/14.4Kbps Fax
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CORRECTION: Last issue we described a new Microsoft FTP site offering software updates, programming samples for software developers, patches, and utilities. We noted the service runs on a UNIX system. Microsoft called to inform us that the system actually runs on a version of Windows NT. FTP to ftp.microsoft.com.

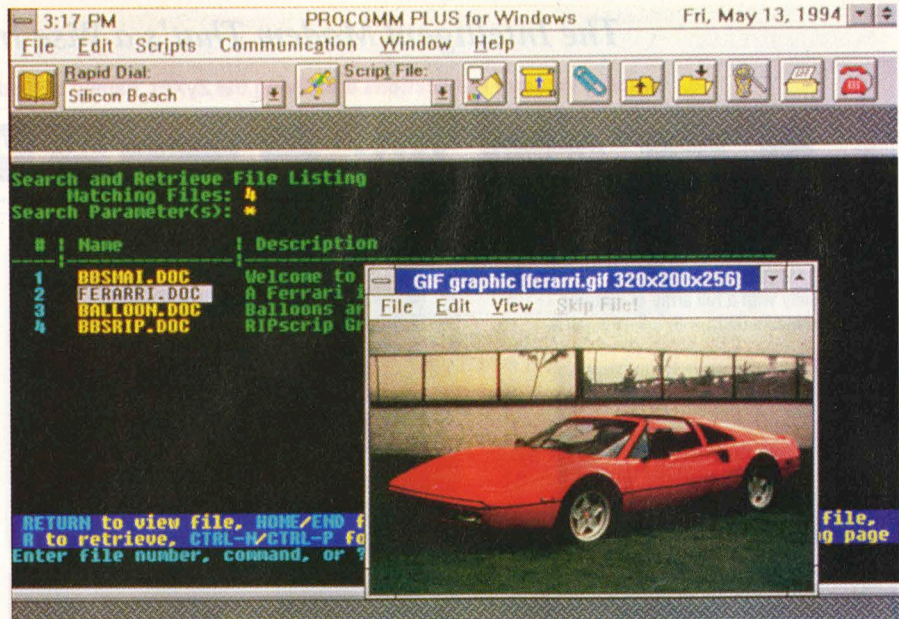
GALACTICOMM UPGRADES ONLINE DATABASE TO INCLUDE PHOTOS

Galacticomm, Inc., has released version 3.0 of their Search and Retrieve add-on for The Major BBS. Search and Retrieve is an online file database manager that integrates with The Major BBS and provides rapid search access to large databases of text information.

The new version adds boolean search operators, and online photographic images. Users can specify up to eight search keywords which can be combined with the AND, OR, or NOT boolean logic operators to qualify the search.

According to Scott Brinker, Galacticomm's President and CEO, "There has been a huge demand for associating photos and graphics with text files online. A common application for this technology is electronic newspaper publishing, where photos often accompany articles. Search and Retrieve now supports online graphic file viewing, if a user's terminal program has the ability to display a graphics file while downloading it."

Files are organized by areas and categories for efficient searching. An online newspaper might create an area of "Sports" and a category of "Football." The user can then select the keyword string they wish to search for, such as "Miami and Dolphins and Dallas and Cowboys." Within seconds, the user's screen displays a list of files containing these four words. They can also peruse an online index to see if there are any words close to what's sought, or use wildcards to search for a word which may have a variety of prefixes or suffixes. The user can then read short abstracts describing the files to see if they would be of further interest.



Galacticomm's Search and Retrieve Database with Graphics

After selecting files to read, users can either examine them online or download them for later examination. If the BBS has the Fax/Online add-on for The Major BBS, they can also fax them to any fax machine.

The Search and Retrieve Add-on Option is priced at \$199 and requires The Major BBS version 6.2 or later, a '386 PC or better, and 4 MB of RAM minimum. An online demonstration of Search and Retrieve is available on the Galacticomm Demo System. Galacticomm, Inc., 4101 SW 47th Ave., Suite 101, Fort Lauderdale, FL 33314; (800)328-1128 voice; (305)583-5990 international; (305)583-7846 fax; (305)583-7808 BBS; Internet: info@gcomm.com.

U.S. ROBOTICS ANNOUNCES NEW V.EVERYTHING MODEM LINE

U.S. Robotics has stumbled badly in the past year by betting heavily on AT&T's V.32terbo 19.2 kbps technology. In the face of overwhelming acceptance of the Rockwell V.Fast Class 28.8 kbps chipset and modems based on this chipset, and continued faltering delays in the International Telecommunications Union release of the V.34 specification (still due this June) the company is scrambling to get

back on the top of the heap with regards to the compatibility issue. Their solution is the "V.Everything" strategy.

U.S. Robotics announced May 9 pricing on its new line of Courier modems supporting V.Fast Class, V.32terbo, and the forthcoming ITU-T V.34 standard for 28.8 kbps.

The Courier "V.Everything" products are the first and only to support all three major high-speed protocols: AT&T's V.32terbo (19.2 kbps); Rockwell's V.Fast Class (28.8 kbps); and V.34, the still coming ITU-T standard for 28.8 kbps. USR is laying claim to universal compatibility with these new Courier modems.

The new Courier products are based on USR's proprietary Digital Signal Processor data pump with the actual protocol held in FLASH ROM. This allows the uniquely near-English term "software-downloadable upgradability" a life. But it also means the modem will operate with either the V.32terbo connection or the Rockwell V.FC models, and when V.34 is released, you should be able to download the upgrade from the USR BBS and have that too.

"Compatibility is a key concern for both our resellers and our customers," said Michael Seedman, U.S. Robotics vice president and general manager,

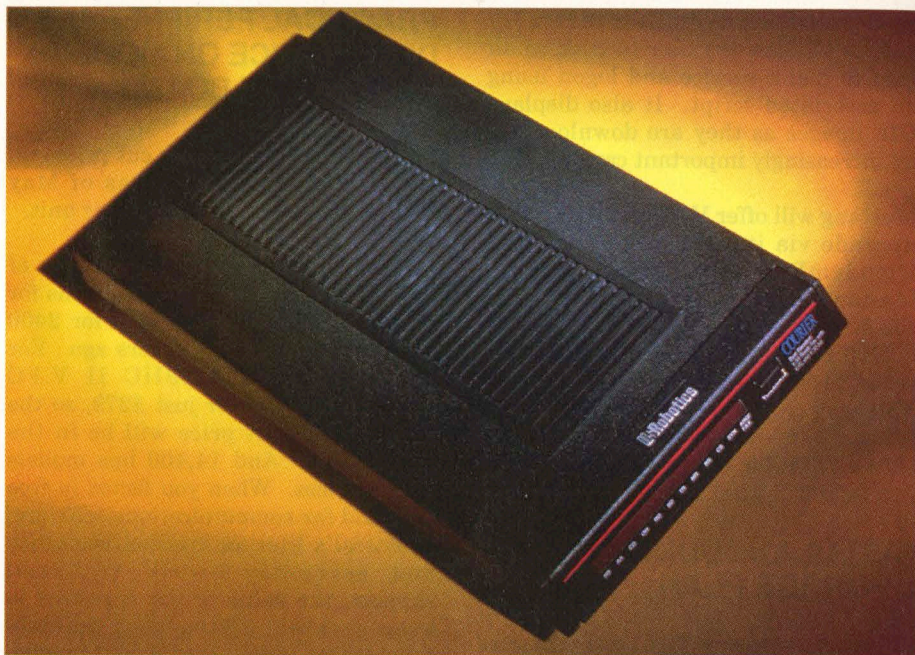
personal communications products group. "The new Courier platform provides a level of compatibility that no other company can match. We're providing the most connectible modems on the market for a very reasonable price, which puts us in an excellent position to capture the 28.8 kbps modem market."

The company is currently finishing a field trial of the new platform, which began in mid-March. Modems will begin shipment upon completion of the field trial. The external model of the V.Everything with Fax will carry a list price of \$595, while the internal model with the same features will go for \$545.

Interestingly, despite the "V.Everything" title, the new modems do NOT offer USR's own 16.8 kbps HST technology in those models. They continue their Dual Standard (at this point an oxymoron) offerings with Courier Dual Standard V.Everything models available at \$795 for the external modem, and \$745 for the internal model. Additionally, all Courier V.32terbo models and most Courier V.32bis models will be field upgradable via a daughter-board swap. And the company plans a trade-in program for older modems later this summer. In the past, these trade-in programs have always been poorly priced, with USR itself advising people to sell their old ones and buy new ones. It will be interesting to see if the new program varies from this past strategy of announcing upgrade programs and then not having one that is economically viable.

The company is also striving to handle the dead-on-arrival status of the Courier V.32terbo line by reducing the price markedly. The Courier V.32terbo model was reduced from \$695 to **\$475** and the Courier V.32terbo Fax model dropped from \$795 to **\$495**. With other brands of V.FC fax modems already under **\$400**, this is not likely going to resuscitate the line.

USR, who pioneered the sysop discount program back in 1984 and at one point owned the BBS sysop market outright, has seen some serious loss in this area to Hayes, and even to a relative newcomer to the BBS scene - Microcom - with their V.FC offerings. But USR may have a winner with V.Everything. They've discounted the basic V.Everything external model with fax to **\$249** for BBS operators. With the Hayes and Microcom upgrade status with regards to V.34 very much



U.S. Robotics Courier V.Everything Modem

undefined at this point, a modem that does it all is bound to be attractive. U.S. Robotics, Inc., NASDAQ:USRX, 8100 North McCormick Blvd., Skokie, IL 60076; **(800)DIAL-USR** voice; **(708)982-5010** international; (708)982-0823 fax; **(708)982-5092** BBS

QMODEMPRO FOR WINDOWS PRICE CUT

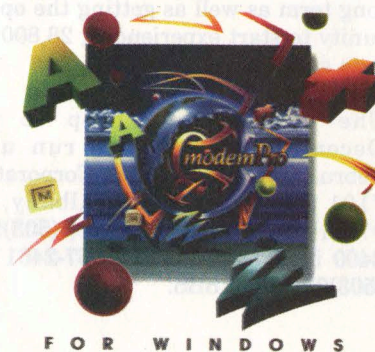
Mustang Software, Inc., reduced the suggested retail price of its QmodemPro for Windows communications software from \$139 to \$99, a 29% reduction, effective May 23, 1994. The price cut applies to the newly released version 1.1 which adds improved fax-comm capabilities.

QmodemPro is sold nationally through Software Etc. and CompUSA stores as well as other major retailers through distributors such as Ingram Micro, Tech Data and DistribuPro. The price change brings QmodemPro for Windows to the same price as their QmodemPro for DOS package.

QmodemPro for Windows was released early this year and in less than six months has established itself as a viable alternative to Procomm Plus for Windows and CrossTalk. Mustang expects the new pricing to give them an advantage over Procomm Plus for Windows, which carries a suggested retail price of \$179.

"With an SRP of \$99, there is no question that dollar-for-dollar QmodemPro for Windows is the most powerful communications software you can buy," said Jim Harrer, MSI's founder and CEO. "I expect to see the street price below the critical \$80 point," he said. "We consider QmodemPro for Windows' new pricing to be a significant breakthrough that will have an immediate effect in the marketplace and lead to even greater popularization of online communications and services."

Mustang has established a reputation for introducing products with new technology and capabilities. QmodemPro boasts Remote Imaging Protocol as a built-in emulation, strong fax communications capabilities, sound, and a very clever use of icons



QmodemPro
PROFESSIONAL COMMUNICATIONS SOFTWARE

associated with dialing directory entries to allow the user to click on an icon to dial a service and logon using an associated script. It also displays GIF images as they are downloaded - an increasingly important capability.

Mustang will offer Version 1.1 as a free upgrade via its BBS to any current QmodemPro for Windows user. Mustang Software, which also develops the Wildcat! BBS product, claims some 80,000 registered Qmodem users, and some 30,000 registered Wildcat! users. Mustang Software, Inc., 6200 Lake Ming Road, Bakersfield, CA 93306; (805)873-2500 voice; (805)873-2599 fax; (805)873-2400 BBS.

SUPRA ANNOUNCES V.34 UPGRADE PLAN

Supra Corporation has enjoyed some success with their low cost V.FC fax modem entry, the SupraFAXModem 288, available at \$399 bundled with software for the Macintosh and PC. The company announced plans to handle the upgrade to V.34 when approved by the ITU.

The upgrade to V.34 will initially be priced at \$69 plus \$15 shipping and handling. The upgrade will require return to the factory for installation of a new data pump. Supra will update the modem and return it within 10 working days. Optionally at \$30, Supra will ship a new modem to the customer via overnight carrier with a package for return of the old modem.

"Due to patent claims and other issues surrounding the release of V.34, we are certain that V.34 modems will come in at a price point significantly higher than our current V.FC modems which sell for as little as \$349," Wiley said. "Users who buy today are likely to be getting one of the best deals for the long term as well as getting the opportunity to start experiencing 28,800 bps data speed today."

The upgrade will drop to \$49 December 1, 1994 and run until February 28, 1995. Supra Corporation, 7101 Supra Drive SW, Albany, OR 97321; (800)727-8772 voice; (503)967-2400 international; (503)967-2401 fax; (503)976-2444 BBS.

PRACTICAL PERIPHERALS DROPS PRICE ON MODEMS ACROSS THE BOARD

Practical Peripherals has cut prices on some 15 modem models as of May 16th, with cuts of up to \$110 per unit.

"Users can now enjoy the benefits of Practical's new 18,800 bps modems for about the same as they paid for 2400 bps modems just a few years ago. For example, our PM288HC II V.FC modem now lists for just \$279, so the estimated street price will be in the \$200 range. And 14,400 bps models are even less. When you factor in free data and fax communications software, Practical's lifetime limited warranty and seven-day-a-week technical support, the value to the customer is even greater, giving us a definite competitive edge," said Jack Murphy, President.

Heading the list of reductions is Practical's ProClass PC 288MT V.FC, a space saving 28,800 bps V.Fast Class modem previously priced at \$459 and now \$349. The PC288LCD V.FC model, which sports a 3-line LCD with over 50 status messages, was dropped from \$529 to \$429. Practical Peripherals, 375 Conejo Ridge, Thousand Oaks, CA 91361; (805)497-4774 voice; (805)374-7272 fax; (805)496-4445 BBS.

BELL ATLANTIC ROLLS OUT CDPD SERVICE FOR CELLULAR DATA

In April, Bell Atlantic Mobile Systems, Inc., became the first carrier to introduce a service using Cellular Digital Packet Data (CDPD). CDPD provides data connections at up to 19.2 kbps over cellular telephones by transmitting packets in the unused "dead" space between spoken words on normal cellular telephone channels. The 19.2 kbps is a theoretical maximum and actual transmissions from a laptop computer, for example, would probably be half of that or around 9600 bps.

The original promise of CDPD voiced by a consortium of CDPD

developers which included most of the cable companies in the country, was that CDPD would offer virtually universal coverage of the country through the existing cellular network, and would be priced much lower than most wireless options due to the piggy-back nature of the transmissions. In typical telco fashion, they've again managed to hopelessly muddle the pricing in an attempt to hide the greed. The service includes a hopelessly complex pricing mix including monthly charges of \$15 to \$50, plus per-packet charges described vaguely as about 16-18 cents per e-mail message, assuming a 750 byte message size. Another promising technology, still-born at the hands of a telephone company.

LIBERTARIAN PARTY ANNOUNCES OPPOSITION TO DIGITAL TELEPHONY ACT

Calling it a "serious infringement of civil liberties and a gross violation of property rights," the Libertarian Party National Committee unanimously voted to oppose the Digital Telephony and Communications Act of 1994.

At their quarterly meeting in Kansas City, Missouri, the governing body of America's third-largest political party charged that "the Digital Telephony Act would make furnishing the FBI with easy wiretapping capability the overriding priority for designers of telephone equipment and related software."

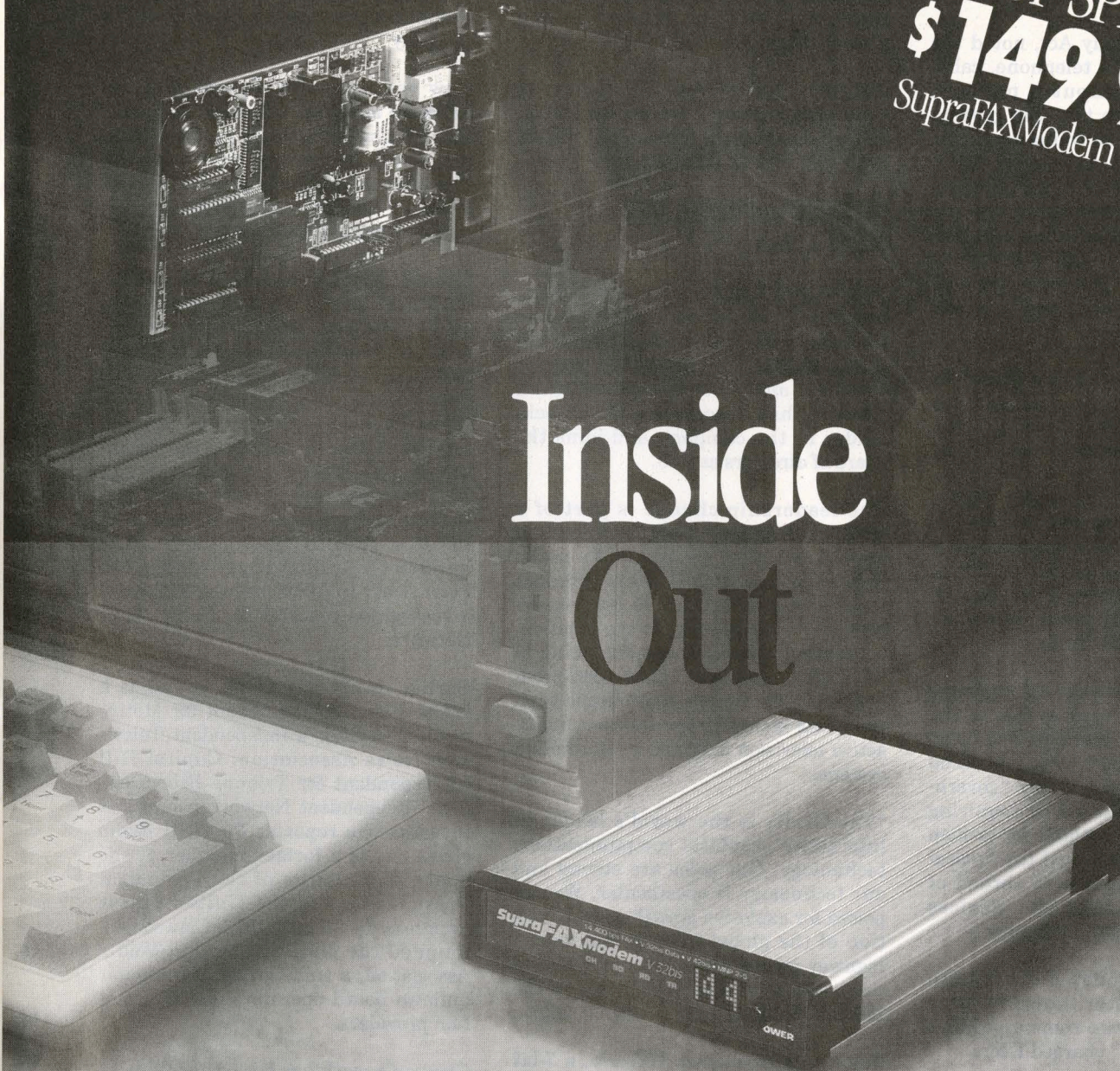
"It is a lie to call this legislation a 'Privacy Improvement Act,'" said Bill Evers, the National Committee



Practical Peripherals PC288 LCD V.FC Modem

SYSOP SPECIAL
\$149.95!
 SupraFAXModem V.32bis

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The Sysop Choice: SupraFAXModem V.32 bis

Inside or Out, now you can choose the hot-selling SupraFAXModem™, technology that best fits your BBS. Either way, Supra can turn your BBS into a communications powerhouse!

Supra's faxmodems offer top-of-the line functionality like 14,400 bps fax and data, compression (V.42bis & MNP 2-5), support for Class 1 & 2 fax commands, and compatibility with Group 3 fax machines.

But SupraFAXModems don't stop there. We've enhanced the standard Rockwell modem technology. The revolutionary status display on Supra's external modems makes it easy for you to monitor online activity. The SupraSmart™ UART on the internal V.32bis faxmodem significantly enhances the potential for error-free transmissions.

Fall Back/Fall Forward technology lets the modem adjust to changing line conditions. And Adaptive Answer* recognizes whether an incoming call is fax or data.

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And Supra offers qualified Sysops an "insider" price on both internal and external faxmodems. Choose the faxmodem that's right for you and call Supra's BBS (503-967-2444) or 1-800-727-8772 today for more information.



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MODEL	RETAIL PRICE	SYSOP PRICE
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* Adaptive Answer and Caller ID require software support. Caller ID also requires service from the local telephone company.
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member from California who sponsored the resolution.

The Digital Telephony Act, noted the resolution, "requires telephone, cable television, and computer network companies to ensure that the government can conduct surveillance while private communication is going on. It requires the installation of surveillance-facilitating software in telephone switching equipment to expose personal information - such as telephone-calling patterns, credit card purchases, banking records, and medical records - to the view of the government."

"Such personal information should be the private property of either the company that assembles it or the individual to whom it pertains," said Evers.

Libertarians also oppose the Digital Telephony Act because it "would require a fundamental re-engineering of the communications infrastructure at great expense to American taxpayers, and to the owners of private communications systems," said Evers.

The Libertarian National Committee also unanimously voted to oppose the National Security Agency's Escrowed Encryption Standard - the so-called Clipper Chip system - or any "government policies promoting or requiring specific encryption methods for civilian use." The party also urged the "repeal of the U.S. ban on export abroad of Clipper-free encryption devices produced by American companies."

"Government-mandated encryption standards will foster indiscriminate surveillance of private communications by the government," charged Evers.

The resolution said "the Clinton Administration plans to induce American manufacturers to install government-readable encryption devices in every telephone, fax machine, and computer modem made in the United States."

"The Clinton Administration is explicitly denying that the American people have the right to communicate in private," said Evers. By contrast, he said, "The Libertarian Party has long upheld the civil liberties of the American citizen."

Approximately 120 Libertarians serve in elected and appointed office around the country, including four State Representatives in New Hampshire and two mayors in California. The Libertarian

Party platform calls for vigorous defense of the Bill of Rights, free enterprise, civil liberties, free trade, and private charity.

Contact Bill Winter, Director of Communications, Libertarian Party, 1528 Pennsylvania Avenue SE, Washington DC 20003; (202)543-1988 voice.

TELEGRAFIX SIGNS NEW CEO

TeleGrafix Communications, Inc., developer of the Remote Imaging Protocol (RIP) has named veteran media executive Patrick M. Clawson as President and Chief Executive Officer. Clawson has become a major stockholder in the company and joins the board of directors as well.

The leadership change is part of a sweeping company reorganization and expansion plan designed to make TeleGrafix into what Clawson describes as a "vertically integrated cybermedia company", specializing in the creation, processing, delivery, and financing of interactive news and information products in a wide variety of electronic environments including the Internet, interactive television and online information systems.

"TeleGrafix is the world's leader in interactive graphical communications technology. Our sales are strong and our technology is spectacular. We are poised for explosive growth as construction of the global information super-highway proceeds, and we intend to be a major player in the development of the Information Economy," Clawson said.

TeleGrafix developed RIPscrip, a 7-bit ASCII text-based protocol for transmitting graphics information and supporting the use of a mouse by modem. The company's products include RIPpaint and RIPdraw for creating RIPscrip screens, and RIPterm for dialing services and using them. TeleGrafix was awarded the Dvorak/Zoom Telecommunications Award for Technical Excellence - Outstanding Advanced Graphics Standard at ONE BBSCON in August 1993.

As part of the TeleGrafix reorganization, duties and titles of several executives have been realigned. Company co-founder Jeff Reeder has been named Chairman of the Board and Cyber-Wizard, James Bergman has been named Executive Vice President/Chief Operating Officer, and Mark Hayton

has been named Vice President/Chief Technology Officer. Craig Cotting will continue as Secretary-Treasurer of the company.

New versions of RIPpaint and the RIPscrip language, allowing transmission of photo-realistic graphics and sound, will be released later this year. The product, originally announced with a May 30 release, will be delayed by the reorganization until sometime in July.

Clawson, 39, is a resident of Berryville, Virginia. He is an award-winning media executive with 25 years experience in broadcasting, publishing and online media. Since 1986, Clawson has been founder and president of Public News Corporation, a news and editorial services company based in the Washington D.C. area. From 1987 through 1993, Clawson also served as the Washington Bureau Chief of Radio & Records, the broadcasting and music industry's leading trade newspaper. From 1983 to 1986, he was an on-air investigative reporter for Cable News Network.

Earlier in his career, he served as a White House correspondent for Metro-media Television's Independent Television News Association; Capitol Hill correspondent for Tribune Broadcasting's Independent Network News; and investigative reporter for NBC Radio News. He is a former member of the board of directors of the Periodical Press Gallery of the United States Congress. In August, 1993, Clawson co-founded the National Online Media Association, a trade group of computer bulletin board operators and information providers.

Clawson's work has been honored with several national journalism prizes including the National Emmy Citation for Community Service TV Broadcasting, the Janus Award for Financial Journalism, and the Amos Tuck-Champion Financial Journalism Prize. He is a two-time winner of investigative reporting prizes from both the Associated Press and the Radio-Television News Directors Association.

TeleGrafix's corporate headquarters remain at 16458 Bolsa Chica #15, Huntington Beach, CA 92649; For further information, contact Clawson at (714)379-2131 voice; (714)379-2132 fax; Internet: 76357.3572@compuserve.com.

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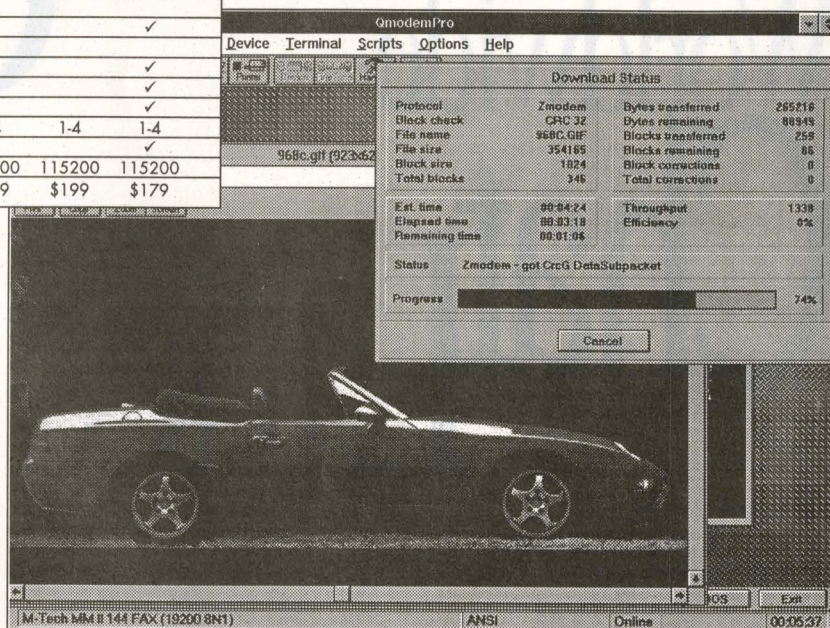
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File Transfer Protocols	10	13	16	8	5	8
Terminal Emulations	34	32	22	8	6	16
Background Mode	✓	✓	✓	✓	✓	✓
Built in Text Editor	✓		✓	✓	✓	✓
GIF viewer	✓	✓		✓	✓	
Sound Card Support	✓					
RIPlscript Graphics	✓					
FAX Send	✓				✓	✓
FAX Receive	✓				✓	✓
Script Compiler	✓	✓	✓	✓	✓	✓
Script Debugger	✓					
Quicklearn Scripts	✓	✓	✓	✓		✓
Queue Dialing	✓	✓	✓		✓	
Group Dialing	✓					
Iconized Phone Book	✓					✓
Auto-Doorway Mode	✓					
Drag/Drop File Xfers	✓		✓	✓		✓
Macro Keys	✓	✓	✓	✓		✓
Customizable Host Mode	✓	✓	✓	✓		✓
Comm Ports Supported	1-9	1-4	1-4	1-4	1-4	1-4
Interrupt 14 Support	✓		✓	✓		✓
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MULTILINE BULLETIN BOARDS - MORE TEST NUMBERS AND A NEW TBBS VERSION 2.3 FROM ESOFT.

With a fairly innocent response to a letter from one of our readers last summer, we seem to have touched off a bit of a range war over multiline BBS performance, and it appears BBS operators are going to emerge victorious in this little clash of the software titans.

You may recall from last issue, Galacti-comm Inc., had taken some exception to a brief note in Boardwatch indicating we didn't think their performance quite matched their advertising claims. As a result, they decided to bring it to ONE BBSCON and show us. But before they did, they tested it - apparently a first effort in that regard. The result was back to the lab and ultimately, a new and improved version of their Major BBS software package. From what we can tell, the new 6.2 version appears to be on par in performance in many ways with eSoft's TBBS multiline product.

Taking up the challenge, eSoft President Phil Becker launched one of the most aggressive BBS software testing programs we've witnessed to date in

May. And the results are both interesting, and once again beneficial to BBS operators with a new TBBS 2.3 release emerging to up the ante again on what you can do from a single PC platform BBS.

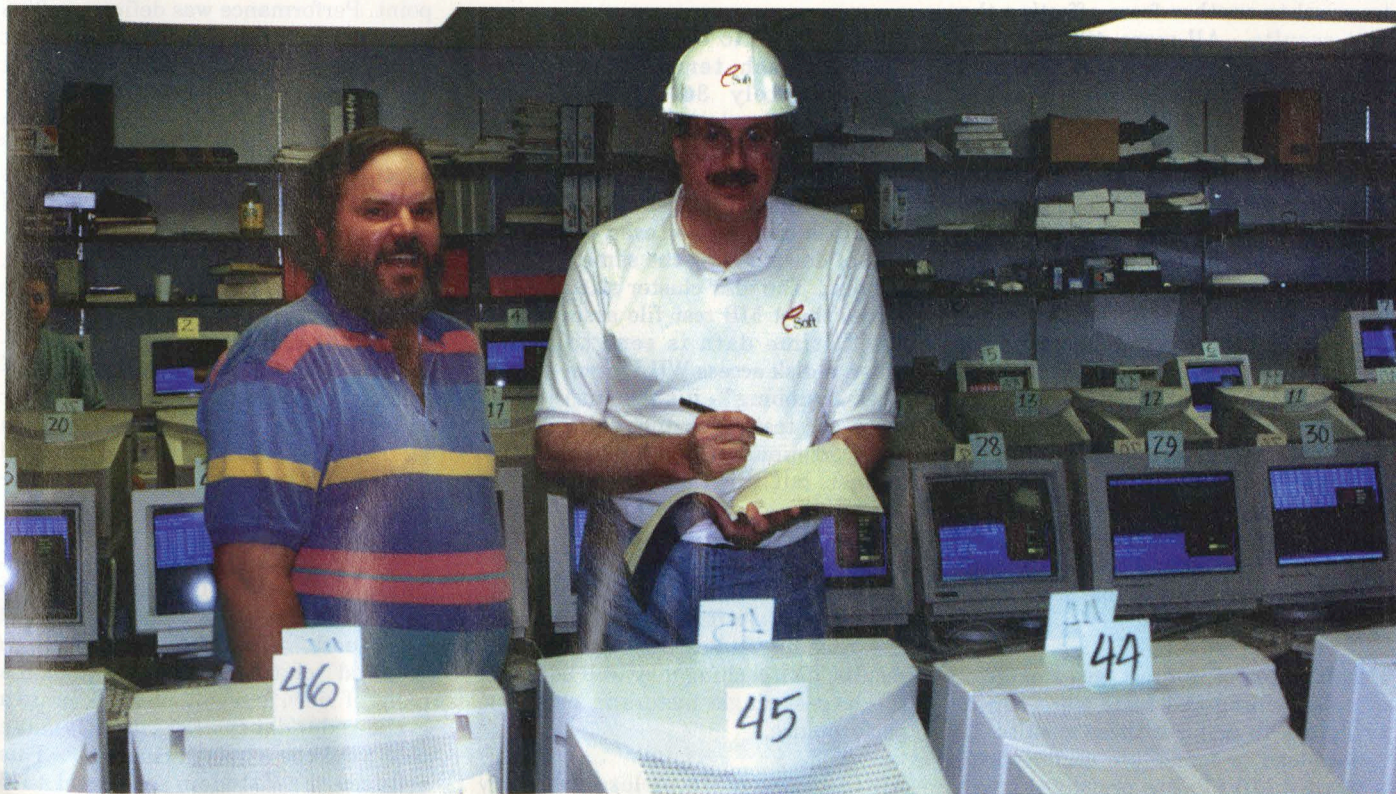
A number of bulletin boards are becoming quite serious about the multiple line count game, and fortunately, the hardware is growing more capable just in time. But the higher speed modems offered are putting a strain on software developers to tune for performance.

Galacticomm's closest competitor is eSoft, Inc., developer of The Bread Board System (TBBS) package. TBBS has developed a reputation as a solid performer at up to 64 lines, but the new port speed requirements for V.FC modems have strained TBBS to the limit as well.

Becker spent a number of years in software development for the Viking and Apollo space projects with Martin Marietta Denver Aerospace, and came thereby to some pretty particular views on testing methodologies. With rising interest among their customer base in large line count systems, he set up the most ambitious test program of BBS software we've seen done. For two weeks in May, the eSoft crew assembled a mammoth room full of computer

terminals to simulate as closely as possible 64 actual download connections via null modem serial cable to a variety of BBS software - including their own existing version 2.2, their new version 2.3, Galacticomm's earlier version 6.12, and Galacticomm's new version 6.2. Actually the testing continues with the expressed intent of testing all the BBS software solutions such as Mustang Software's IM version, PCBoard's /M version, OS/2, UNIX, and others.

The first three days were devoted entirely to installing some 64 486-25 MHz terminals, putting 16550 UART serial cards in them, installing Procomm Plus 2.01 terminal software, and running over a half mile plus two football field lengths of serial cable through a room specifically designed for the test. The cables were connected by null modem to the Digiboard multi-port serial cards used for the test. It required a 100 amp electrical service just to power the terminals (some 12 kilowatts - enough to power two homes) and despite the air conditioning, it was a hot two weeks in May. And the result looks like a high-tech laundromat of PC terminals. The equipment was rented at a cost of some \$1800 per day, so nobody was doing their wash, and there was no place to stick in a quarter anyway.



Bob Hartman (left) and Phil Becker in the eSoft Test Lab



The terminals were installed and tested and calibrated so that the download performance of each of the 64 terminals wouldn't vary by more than 0.5%. All 64 test "users" were simulated with individual computers run manually. This allowed full visibility in to the operation of each simulator. And each terminal was loaded with a 4 MB delayed-write disk cache to prevent anomalies in disk speed from one terminal to another from affecting the test results. All were 486-25 MHz units. A couple of Dell 386 machines were tried and discarded early in the game.

In testing the BBS software, a number of tests were performed, but all software was operated from the same IDE disk drive to remove disk drive variability, and all were run from the same machine. Actually tests were performed across three machines, a 486-33 MHz machine, a 486-66 MHz system, and a Gateway 2000 P5-60 Pentium machine to map the variations in performance across different horsepower processors. Each test was run twice, separated by two days. If the results were not within +/- 1%, the test was discarded and run again until the results were repeatable within the 1% range.

One big area of interest was the effect of disk caching. All tests were run in two ways to achieve these results. In the no-load or maximum caching test, a single 4 MB file was preloaded into a software disk caching program on the BBS (PC Cache) and the disk drive

light monitored during the entire download process to assure NO disk activity of any kind. This basically measures the systems ability to spew data through the serial ports, handle IRQ interrupts, and schedule activity. It really is not a reflection on performance "if you have a disk cache." It's very much an effort to isolate BBS activity from disk activity for test purposes.

The kindred "No Cache" test involved starting each terminal download approximately 30 KB after the previous one to ensure that NO caching advantage at all was gained. This "fragmented" approach assures that NO callers ever get any advantage from disk caching - or even the advantage of downloading the same file from the disk. The disk cluster size of 32 kb across the 4 MB test file assures that EACH time data is sent to EACH caller, a disk access WILL occur. Call it "disk scrubbing" - it's the antithesis of the cache test. Not only did the bank of 64 terminals look a bit like a laundromat, but this test causes the BBS hard drive to sound a bit like one of the older washing machines with a handful of quarters in the tub.

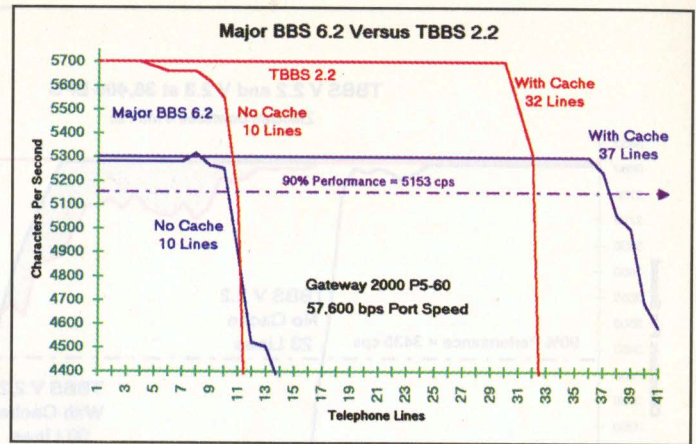
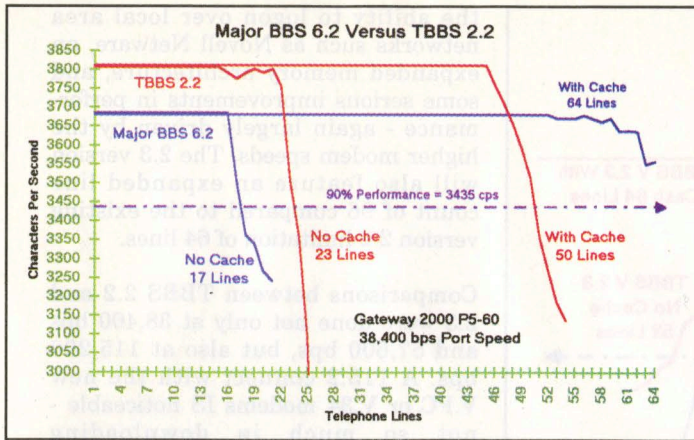
This effectively maps the extremes of disk caching, and as we'll see from the results, disk caching may well be one of the largest single factors in multiline performance.

All tests are more or less arbitrary benchmarks. But we could say that in real world operation, with a large

cache system, a "hit rate" on a BBS of something in the 50-55% range is rational. So with regards to downloads, the closest approximation to real world activity on a board consistently used to download files would fall about midway between the maximum-cache and no-cache test figures.

Another variation from the Galacti-comm tests was in the chosen failure point. Performance was defined as **90%** of the theoretical maximum port throughput at any particular port speed, and the test did not cover 19,200 bps or lower speeds as the focus was on the higher port speeds of 38,400 bps, 57,600 bps, and 115,200 bps. The 90% breakpoint was defined as **3435 cps** for the 38,400 bps ports, **5153 cps** for the 57,600 bps port speed, and **10,307 cps** for the 115,200 bps ports. This is a tougher mark to make with regards to performance so virtually all of the actual line count performance marks were dramatically lower for all software tested. Interestingly, in aggregate CPS, The Major BBS did better on these tests than on their own.

The 90% calculation bears some explanation. The test file was specially selected to minimize Zmodem protocol overhead. The file contains no "quoted" characters from Zmodem's point of view, and will never generate a cyclic-redundancy check (CRC) value that would be a quoted character. This reduces the Zmodem overhead to **6 bytes** per kilobyte or some **99.41747%** efficient. On a 38,400 bps port speed,



this would indicate a maximum achievable data rate of **3817.63** characters per second (cps). A **90%** value would then be **3435.86** characters per second. The test file is available by ftp from esoft.com for those interested.

One of the things we happy graphers liked best about this test was that it was extremely incremental. Rather than adding simulated callers in banks of **8** or **16**, actual test measurements were done with the addition of EACH connected terminal, giving us some very nice data points to plot and a very precise idea of where failure points occurred.

The result was a fairly enormous database of download performance data for each software program, at each port speed, and on each computer hardware platform. We will discuss platform differences in just a bit, but to summarize this test, we focused on the performance figures using the Gateway 2000 P5-60 60 MHz Pentium machine. Our thinking is that performance is most of interest to operators with a need to run largish line counts. With the investment in hard disk storage, multi-port serial cards, the large number of modems, telephone line service etc. to operate 50 to 100 lines, the cost of a machine such as the P5-60, which is currently about **\$3000**, is relatively trivial. Clearly with the higher port speeds, if you do need to run a quantity of lines, get a top machine with regards to CPU.

In comparing TBBS with the Major BBS, first note that the Major BBS does not do 115,200 bps port speeds at all. So comparative tests between the two packages were limited to port speeds of **38,400 bps** and **57,600 bps**. And in the tests of 38,400 bps performance comparing Major BBS 6.2 to TBBS 2.2, it would appear that the Galaticomm engineers have brought the Major up to speed to some degree. TBBS is still significantly faster out of the gate with performance at about **3810 cps** across most of its range, while Major BBS started At **3680 cps**. With caching removing any disk drive impact, Major 6.2 did all 64 lines above the 90% mark while TBBS faltered at about **50** lines. With the caching removed, the results reversed

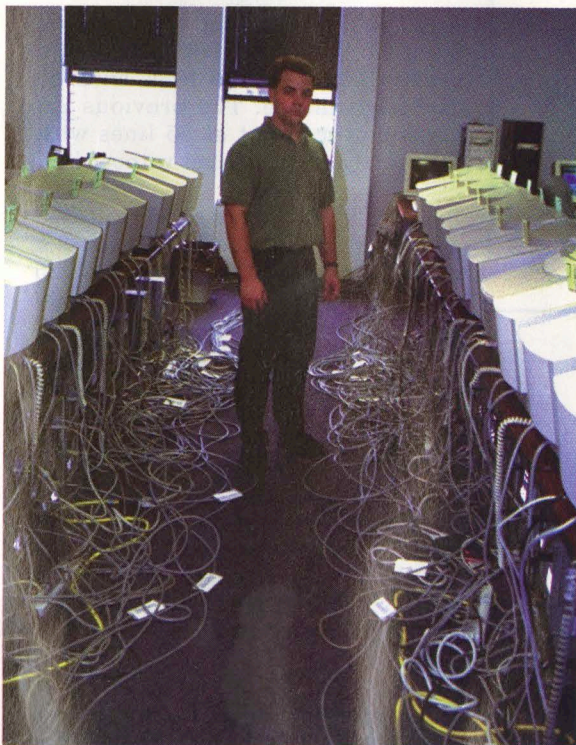
with Major pumping **17** lines while TBBS 2.2 ground out **23** lines before failing.

The Major BBS affinity for caching continued in the **57,600 bps** tests. With caching, Major again outperformed TBBS by manning **37** lines against TBBS's **32**. But with caching removed, they were dead even at **10** lines. With no disk access, Major BBS was the winner. With disk access, TBBS seemed the best bet. In terms of actual performance we'd probably call it a draw. But the concept of **255** lines at these port speeds is clearly ridiculous.

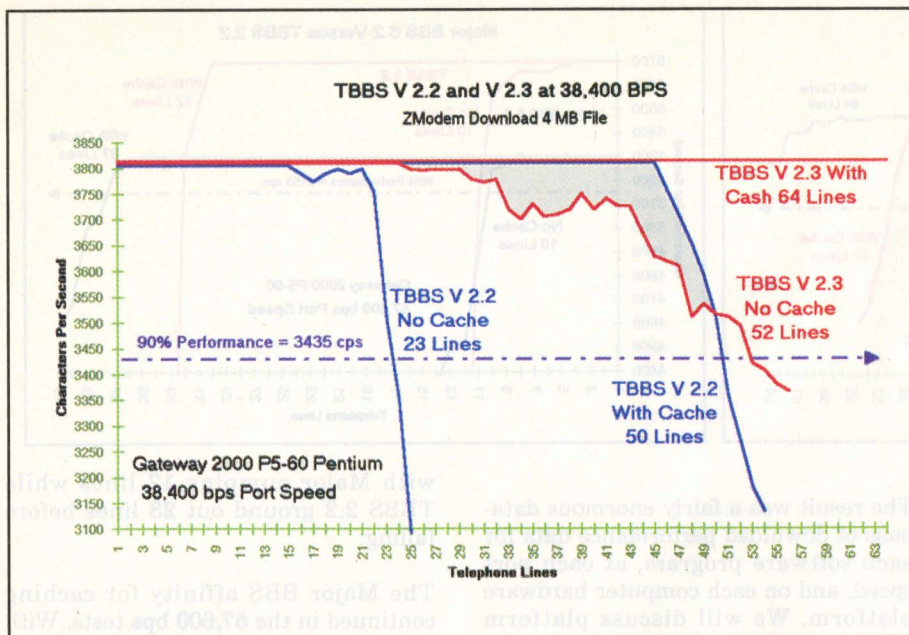
A couple of things became immediately apparent. The **90%** performance point turned out to be an appropriate one. Performance by both packages was remarkably flat across their range, but when it went bad, it went bad in a hurry, and usually right about at the 90% mark. After that, it was downhill all the way.

One very odd anomaly might be useful for Major BBS operators. Apparently line one has some special significance. They detected by accident that line one operation caused a significant decrease in performance of Major BBS and as a result, all tests were done with line 1 disabled for Major BBS. It would appear you can pick up three to five lines additional capability by simply NOT using line one on this package.

One of the main purposes of the test was not so much to test TBBS against Major BBS, but rather to test TBBS against TBBS. The last update to TBBS was released in November, 1991 as version 2.2, and is "no longer young." Bob Hartman and Phil Becker have been working on a new TBBS 2.3 version in what is termed a "maintenance" release scheduled for August 1st. The new version features an improved file management interface,

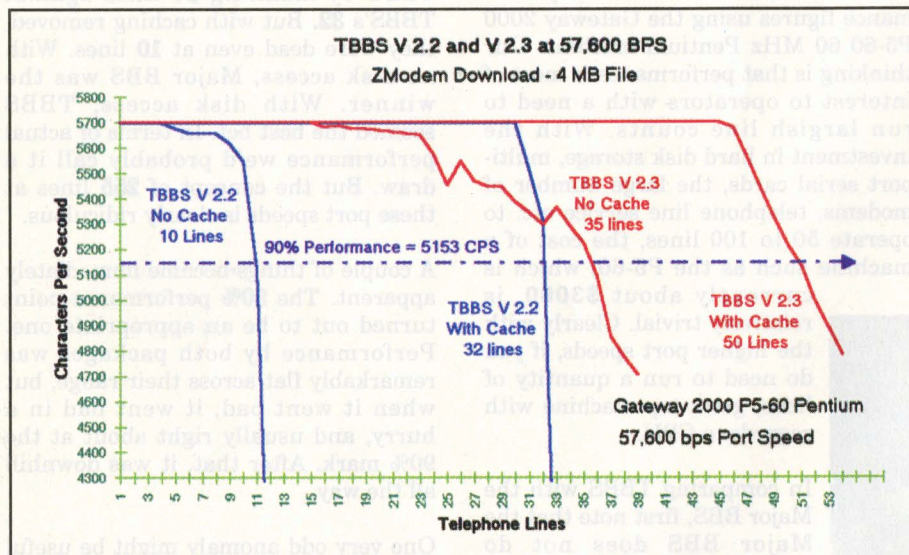


Adam Hudson
"Help Me - I'm Tangled and I Can't Get Out"



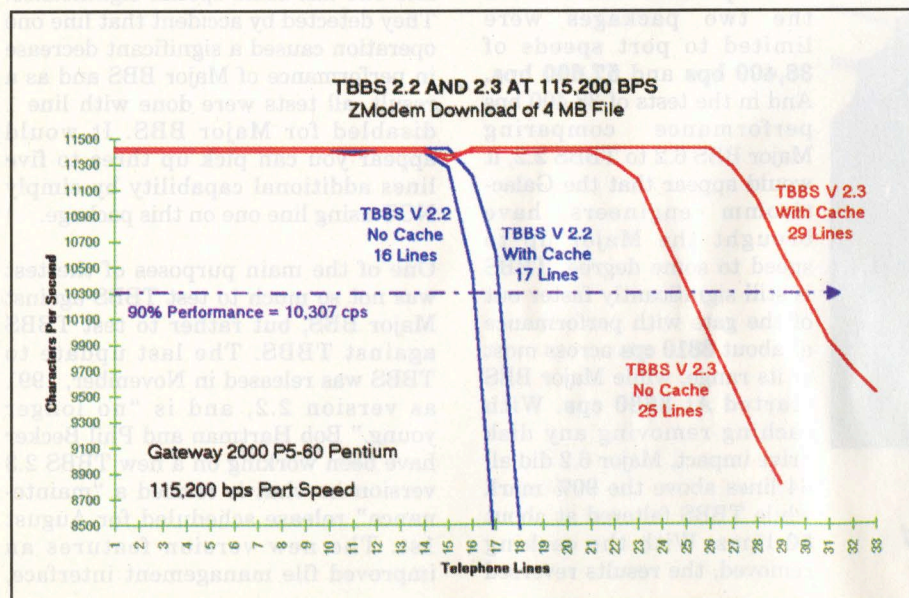
the ability to logon over local area networks such as Novell Netware, an expanded memory architecture, and some serious improvements in performance - again largely driven by the higher modem speeds. The 2.3 version will also feature an expanded line count of 96 compared to the existing version 2.2 limitation of 64 lines.

Comparisons between TBBS 2.2 and 2.3 were done not only at 38,400 bps and 57,600 bps, but also at 115,200 bps. A 115.2 connect with the new V.FC or V.34 modems IS noticeable - not so much in downloading compressed files as just in navigating menus. The feeling of "distance" is entirely gone. And with the interest in Internet connections, ISDN, and similar technologies, this will inevitably become more important in the future.



From the tests, we can see that the new TBBS 2.3 has extended the curve at the failure point considerably. At 38,400 bps, for example, the new 2.3 version with NO cache actually outperformed version 2.2 WITH cache sporting 52 lines above the 90% chopper. WITH cache, the new 2.3 version did all 64 lines with a perfectly flat performance of an impressive 3815 cps on all lines simultaneously.

At 57,600 bps the new version could pump 50 lines with full cache and a pretty impressive 35 lines with no cache advantage. The previous 2.2 version topped out at 35 lines with cache and a scant 10 lines without it.



But at 115,200 bps, we could really tell where things got tough. Version 2.3 could still do 29 lines cached or 25 lines without cache - a notably narrow difference. TBBS 2.2 could handle 17 lines with and 16 without. We calculated an aggregate throughput on TBBS 2.2 of about 181,340 using the 115,200 bps ports compared with 282,960 aggregate cps for TBBS 2.3. This would indicate a 1.56X improvement in the ability to spurt data at very high speeds and in fact we checked this same methodology against the 57,600 bps tests with exactly the same results - a 1.56X jump.

In comparing Major BBS 6.2 with TBBS 2.3, it would appear Bob Hartman earned his bonus money. The first test of interest was a Zmodem download of a 4 MB test file on all 64 lines with the ports configured for 38,400 bps and the test file

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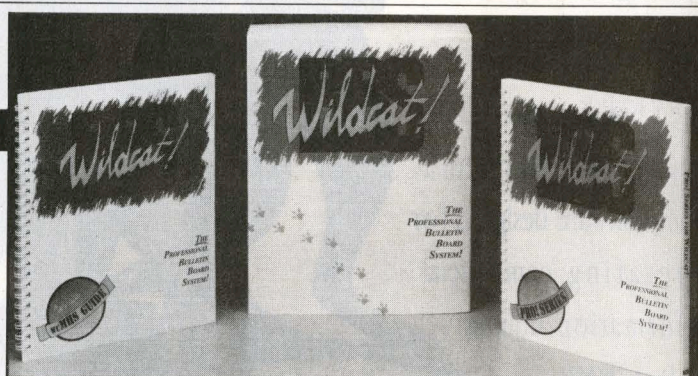
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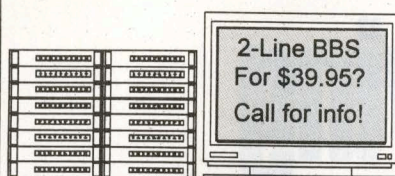
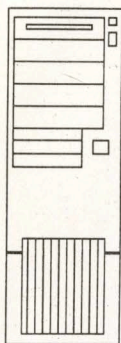
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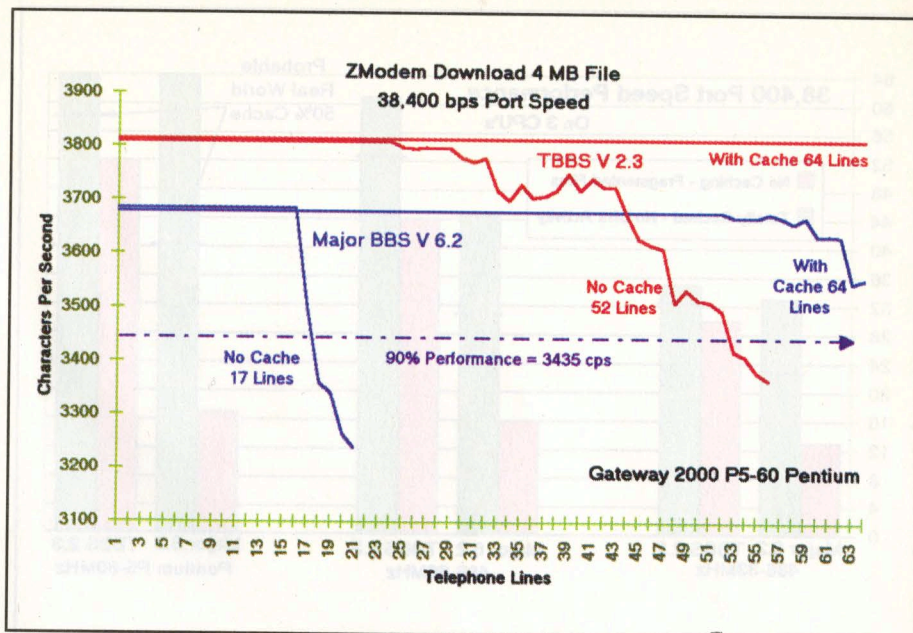
preloaded into cache. On the P5-60 machine Both Major BBS 6.2 and TBBS 2.3 handled this with little difficulty. TBBS held totally flat at 3815 cps, with Major holding 3680 cps most of the way with some fall off above 50 lines, but well within the top 10% range defined as success.

When this same test was performed on the fragmented file - no caching advantage, TBBS fell to 52 lines above the 90% mark, but Major BBS caved to a disappointing 17 lines.

The gap continued at a 57,600 bps port speed with TBBS achieving 50 lines and holding over 5700 cps most of the way. Major BBS averaged some 5300 cps and dived below the 5153 cps cutoff above 37 lines. Again, when the cache was removed, both programs felt the sting, but while TBBS dropped to 35 lines, Major BBS could do but a third of that at 10 lines.

One of the areas of interest to operators is the effects of CPU speed. Frankly, they weren't what we hoped for. Disk access is decidedly the name of the game. The accompanying tables show performance with both 38,400 bps port speeds and 57,600 bps ports on a 486-33 MHz, a 486-66 MHz, and a Pentium P5-60 MHz machine - all using the same disk drive ensemble and video card. Broadly, you can double your line count in moving from a 486-33 MHz to a P5-60 MHz machine using TBBS either way. Major BBS is noticeably disk bound, and requires heavy caching to achieve any improved results by moving to a faster cpu.

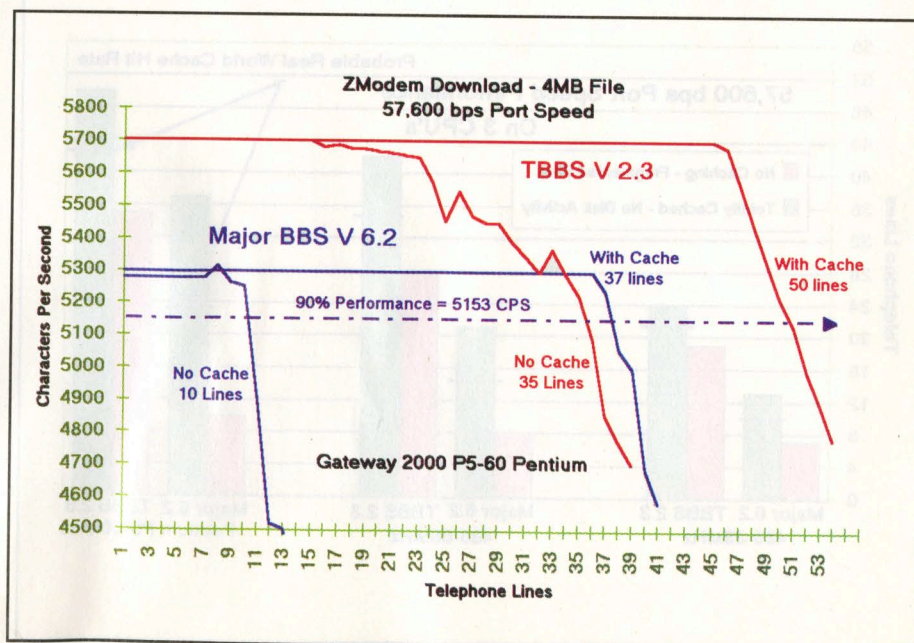
How do these counts relate to the real world? Well only barely. If you are in a heavy download situation on all lines, using the latest V.FC modems, with callers downloading dramatically different files, the machine must deliver the data to each modem at something HIGHER than the speed you want to achieve. On compressed files, we're shooting for about 3300 cps. The 38,400 bps port speed will do it. Under those conditions, using a P5-60, TBBS 2.3 can assuredly sport 52 lines, and Major BBS 6.2 can assuredly support 17 lines. Can caching help? Actually it can help the Major more than it can TBBS. We would guess that if you went to a hardware disk caching controller of large size (16 or 32 MB), and could thereby achieve a 50% hit rate on the cache reliably, Major BBS should handle 41 lines and TBBS about 58.

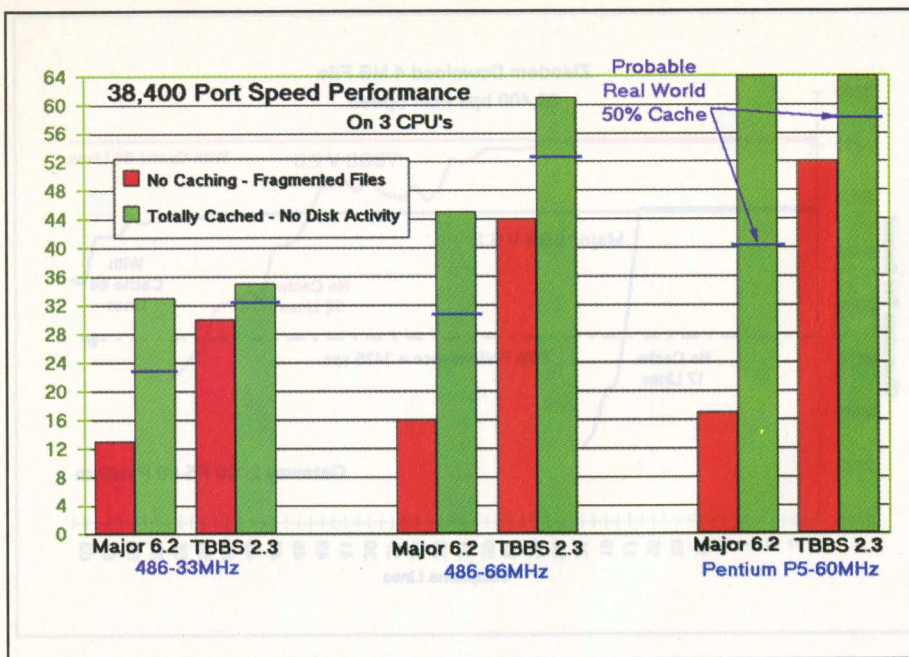


An easy measure, developed in Galacti-comm's testing is of aggregate CPS - how many characters per second can the system put out when viewed as a total machine. At 57,600 bps, Major 6.2 seems to pump some **196,040 cps** at 90% or greater with no disk access - considerably higher than the **160-180,000 cps** measured using their methodology on an identical machine. TBBS 2.2 lagged Major BBS at **181,823** slightly, while TBBS 2.3 produced an impressive **283,873 cps**. The accompanying table breaks this out by port speed in cached and uncached configurations.

The usual comment regarding such testing revolves around the fact that on most bulletin boards ALL callers are not ALL downloading ALL the

time and so you can grossly inflate line counts based on the principle that some percentage of them will be staring off into space at any one time. This takes us out of the area of measurement and into conjecture and wishful thinking, but I'm a big fan of the concept of cancelling errors. If I ever do get a lucky break, something will cancel it. In this case, for everyone typing laboriously at 12 words per minute at their terminal, you have others who are doing QWK mail transfers, database searches, message base scans, etc., that are both cpu intensive and cause linear disk searches that will rattle the bones of any BBS. This type of activity can be more resource intensive than the file download model we test. So our theory is that those browsing menus and typing messages





are cancelled by the database scanners and mail packers.

One legitimate way to extend line counts is with lower modem speeds. If you assume 14.4 kbps modems, either of these systems should be able to handle **96** lines with no trouble. But for future planning, you're playing modem roulette against a calendar. The V.FC modems are already broadly under **\$300** and the traditional mass move happens at the **\$200** mark. We would predict the move from 14.4 to the higher speeds will be the fastest ever made.

The TBBS version 2.3 release was intended as an interim maintenance release pending the introduction of version 3.00. It is currently scheduled for an August 1 ship date, but it appears to have an impressive number of interesting features for a "maintenance" release. The new version will feature a strongly improved file area interface, an area where TBBS has been notably lacking - to some strong comment from their sysops. But in addition to the performance jump from 2.2 to 2.3, it will also allow you to logon to the BBS across a local area network, and an increase in maximum line count from **64** to **96** lines - welcome relief to those chafing at the **64** line boundary. A memory architecture change will allow larger TBBS applications, and also accommodate a new release of the QSO QWK mail option module to handle **PKZIP 2.0x** zipped mailed bags.

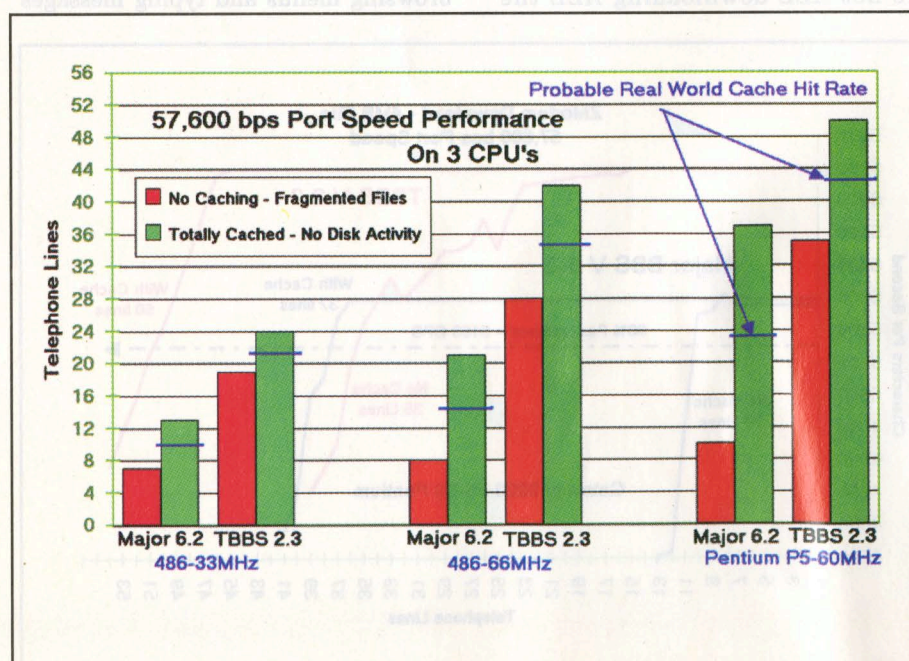
The good news for Galacticcomm is that they DO appear to have caught up with TBBS 2.2 in terms of performance. The bad news... they get to do it again. TBBS 2.3 is a killer.

For those interested, Becker is preparing a white paper with the full setup and methodology necessary for anyone to empirically repeat any portion or all of the test, along with all the test data - barely summarized here. Additionally, they made a videotape of the whole test scenario you might find interesting. The white paper will be free for download from their ftp site. Contact eSoft, Inc., 15200 East Girard Ave., Suite 3000, Aurora, CO 80014; (303)699-6565 voice; (303)699-6872 fax; (303)699-8222 BBS; telnet or ftp: esoft.com

AGGREGATE CHARACTERS PER SECOND

	Major 6.2	TBBS 2.2	TBBS 2.3
57,600 bps max cache	196,040	181,823	283,873
38,400 bps max cache	>235,061	189,680	>244,160
57,600 bps no cache	52,793	56,631	195,818
38,400 bps no cache	62,641	87,081	194,841

Measured as total aggregate CPS on all lines up to and including 90% breakpoint on Pentium P5-60..



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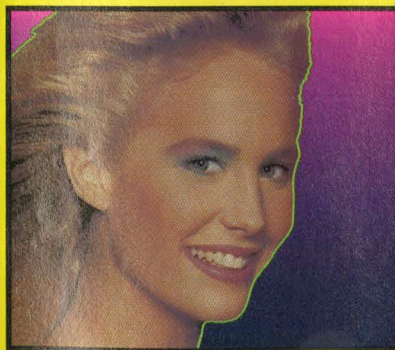
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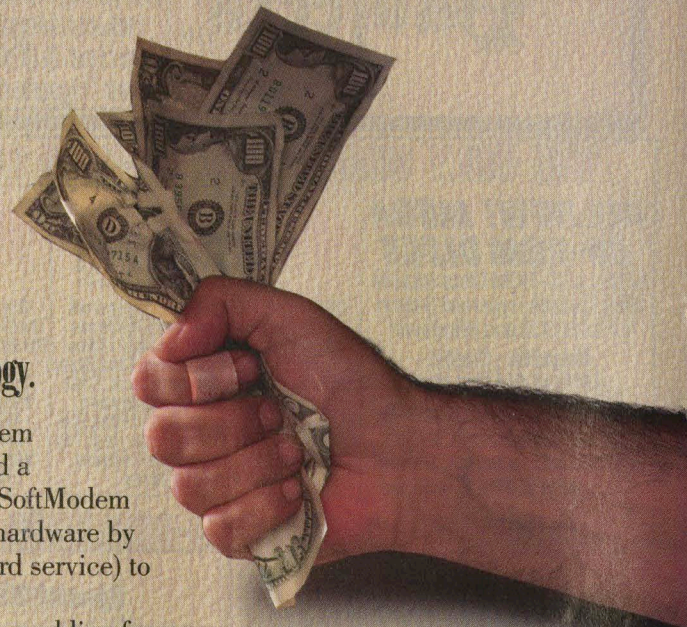
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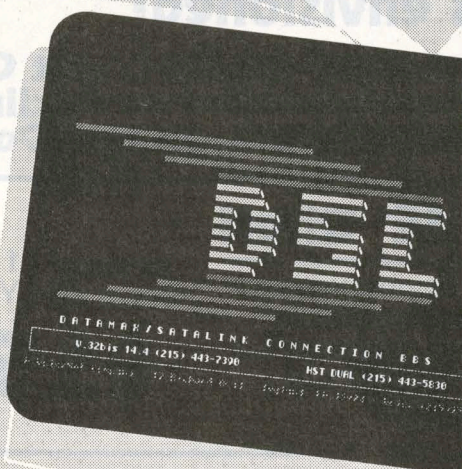


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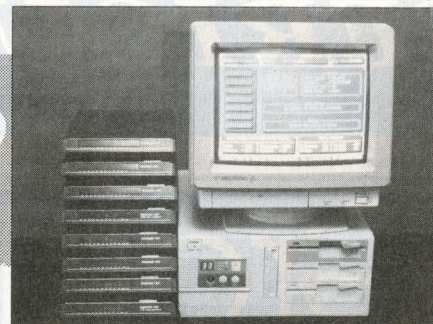
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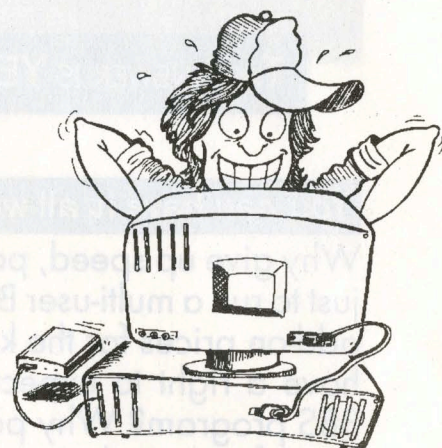
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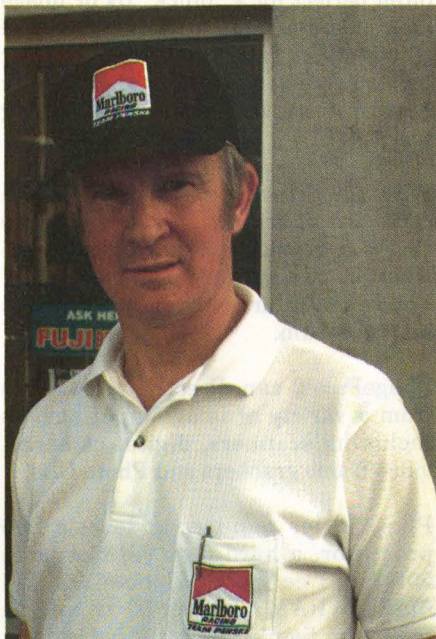
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TOOLS OF THE TRADE



by Jim Thompson
Western News Service

Presenting graphics in an online environment is far from a one-step process. After creating and digitizing the original image, you will need to crop, enhance and/or color correct the image, save it in the correct format which may require compression, transfer it to the correct online platform which could require conversion to another operating system and, finally, properly integrate it into your BBS.

All of these steps can be slow and painful if you are not using the right

tools. In this latest installment of using graphics in an online environment, I will look at a couple of tools that are invaluable when working with graphics.

PHOTOSTYLER 2.0

Aldus Corporation has completely redesigned their already full-featured image processing software for the PC. PhotoStyler version 2.0 adds an improved user interface and some sophisticated tools for image manipulation.

Those who have used PhotoStyler version 1.1 will immediately be struck by the new user interface. All of the old familiar features are still there, but the new interface makes them more accessible.

A "tool ribbon" has been added directly under the menu bar. The tool ribbon gives you immediate access to the options available for the tool you are currently working. For example, if you have selected the Zoom tool (signified by a magnifying glass), which allows you to enlarge or shrink the image on the screen, the tool ribbon allows you to: quickly center the image, display on a 1:1 basis, change the zoom increment, switch between zooming in or zooming out modes and to select a



special magnification window (Magnifying Loupe) for a closer look at a particular section of the image.

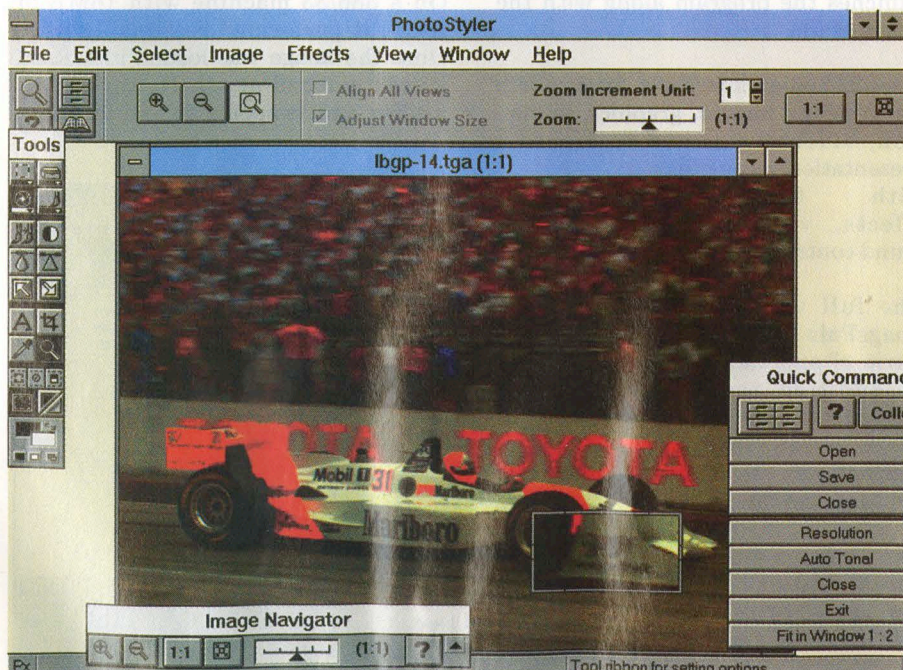
The tool ribbon allows for easy access to the main features and options for each of the tools.

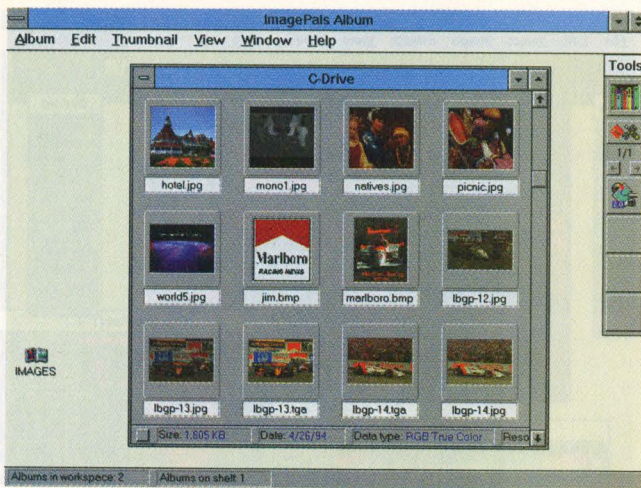
An "Image Navigator" is also available. This handy little floating tool box gives you instant access to most of the viewing and zooming commands and tools while dramatically improving the speed of moving around within an image. The Image Navigator "contains a thumbnail view of the entire image and a box overlay; dragging the box across the thumbnail changes the area being viewed in the main image window."

Also new in version 2.0 is a "Quick Command" box. This convenient item has a cache area or command stack which contains the most recently used commands. There is also a "custom area" in which you can add commands you use on a regular basis. This one feature alone will save you hours of time.

You will also find a host of image previewing options to help speed your image manipulation. The previewing features allow you to view an image before it is actually opened and to test changes on a "Practice Pad" before they are actually applied to the image. The "Soft Proof" option lets you see how an RGB true-color image will look when printed to a color output device.

Working with large images is also easier in this new version of PhotoStyler. A Partial Edit command lets you load only a portion of an image into memory for editing. With this option, only the selected portion is loaded into RAM. The remainder of the image file is transferred to a temporary





file on the hard disk. The result is more available RAM and a dramatic improvement in performance.

Exchanging files across platforms is also much easier. PhotoStyler can save and open just about every image format. Among the formats supported are: TIF, PCD (Kodak Photo CD), PSD (Used by Adobe PhotoShop), JPG, SCT (Scitex. High-end color used in the Prepress industry), EPS, BMP, PCX, TGA, GIF, DCS, RLE, PCT and MAC (Mac Paint).

Also new is the addition of the KODAK PRECISION Color Management System (KCMS). As the manual puts it, "with a properly configured CMS, you get consistent, accurate color throughout previewing, editing and output." Basically, the CMS is a color translator that "interprets color between various devices, such as scanners, monitors and printers." The system uses Precision Transforms (PTs) which contain the color characteristics for a particular device. Essentially, KCMS automatically matches on-screen color to the way input and output devices handle RGB or CMYK color.

It all sounds confusing but the program does all the calculations for you, making the process very simple. Just select your input and output devices and the software does the rest. Those who insist on making their own adjustments won't be disappointed. The color profiles of any device can be changed. One way or the other, the result is a dramatic improvement in final quality.

Finding images is also a lot easier with PhotoStyler thanks to the included limited version of ImagePals Album from U-Lead Systems, Inc. which allows you to catalog and view thumb-

nails of images. This image manager and database helps organize your image files into collections much like you would save or organize family photographs in a photo album. Once in an album, images can be sorted, browsed and searched. You can also "drag-and-drop" files from the album directly into PhotoStyler or other Windows programs.

When creating collections, you can specify certain files, certain directories or have ImagePals Album search your entire disk for all images.

The version included with PhotoStyler version 2.0 is limited to the creation of 5 albums and has limited support for image formats. Upgrading to the full version of ImagePals Album (called ImagePals 2) is well worth the price of \$79.

Just about every image format is supported by ImagePals 2, including vector formats like CGM, CDR and WMF. You can even add application specific files like word processing documents and database files to a collection.

Displaying any stored image is as simple as double-clicking on its icon in ImagePals 2. Double-clicking on an icon representing an application launches the program along with the image or file.

A multimedia slide show feature lets you combine images, graphics, animation, video and sound to create a presentation complete with transition effects, video and sound controls.

The full version of ImagePals is actually a trio of applications. In addition to the "Album" module, there is an Image Editor and a Screen Capture module.

The Image Editor is an easy-to-use full-featured program. While it is not as

robust as PhotoStyler version 2.0, it is often perfect for a "quick" fix or image manipulation when a big program like PhotoStyler is not needed. If your needs are not sophisticated, this may be all you need for your image editing tasks.

With the Screen Capture module you can send all or part of a screen image to a file, a printer, the Windows clipboard or to Capture's own workspace. You can even drag-and-drop the image into an album.

ImagePals 2 can directly import files from a variety of image input devices including scanners, digital cameras, video frame grabbers and Photo CDs.

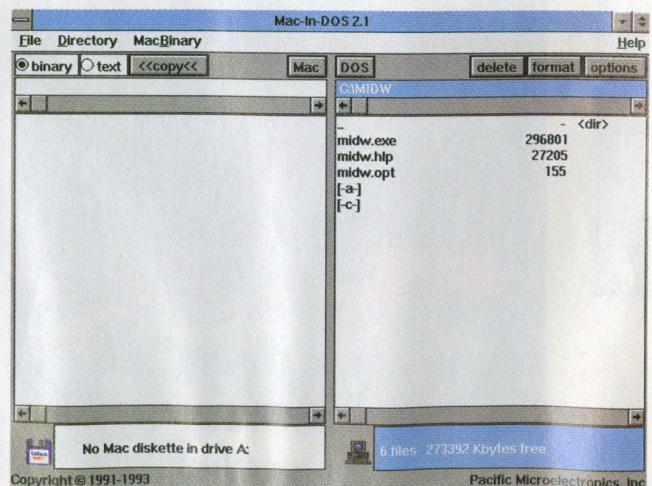
PhotoStyler requires at least a 386 processor, a hard disk with at least 20MB of free space, Windows 3.1 and 6MB of RAM. The 6MB is only a minimum figure, you will need at least 12 MB to use it effectively.

I have only 8MB of RAM on my 486SX portable machine. The new version of PhotoStyler will run on it, but it is very slow. Although I love all the new features, there are times when I load version 1.1 of PhotoStyler because it uses less memory.

You will also find the program a bit sluggish if you use anything less than a 486 processor and work with relatively large images.

I tested the program on three different machines. On each machine I worked with images of 4.5-MB in size.

On a 386/33 machine with 16MB of RAM, it performed reasonably well. Once the image was loaded into RAM it was not bad at all. However, but loading and swapping to and from the



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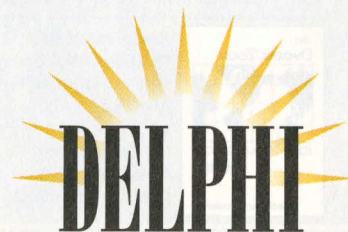


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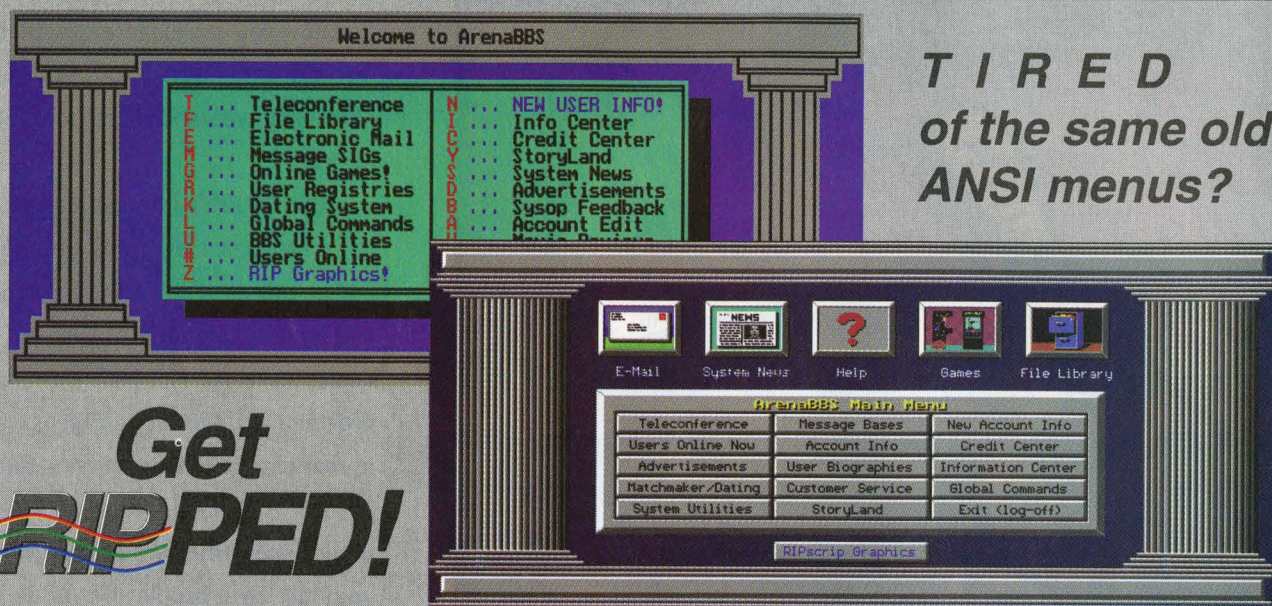
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RIPscrip™ Graphics

Graphical User Interface for your Information Server/BBS



T I R E D
of the same old
ANSI menus?

Graphical user interfaces have been available on many different computer systems for years. But until now, you haven't been able to get a bulletin board system with a GUI unless you used a proprietary solution. Until now. RIPscrip (Remote Imaging Protocol script language) is a published specification developed by TeleGrafix supported by over twenty-five leading vendors on the PC, Macintosh, and Unix platforms. Any on-line system that can display a text menu can use RIPscrip. Chances are that your favorite BBS has RIPscrip support built in.

RIPdraw™

RIPdraw is the entry level RIPscrip graphics creation package. Designed for recreational system operators and the telecommunicator, RIPdraw is perfect for creation of stunning on-line graphics at a low price – \$29. • **Special - \$35** •

RIPaint™

RIPaint is a graphical drawing environment designed for creating menus and screens to supplement or replace a host's existing menus. Integrated tools for creation of clickable buttons, creation and use of bitmap icons, and optimization of files makes this a powerful tool for creating a graphical user interface for your system at an affordable price – \$200.

RIPscrip Graphics are supported by these bulletin board systems:

The Major BBS (Galacticomm)
NovaLink Professional (ResNova)
Osiris XLT (Int'l TeleCom)

PCBoard (Clark Development)
Remote Access (Wantree)
Searchlight (Searchlight Software)

Synchronet (Digital Dynamics)
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disk was a tiresome process. It wasn't terrible, but I did do a lot of waiting.

On a 486SX/25 with 8MB of RAM, the program was very slow. Opening a JPEG file was tedious. Working with the image was also not very much fun. Any changes required long delays. Opening more than one image was just not worth the wait. Working with smaller images was not bad at all. It was just when the file got over the 3MB size that things began to slow down.

On a Pentium-66 with 32MB of RAM, PhotoStyler really shined. With all of these resources, it was right at home. Opening large files was a breeze. Working with large images, even those of more than 15MB in size, was a delight.

The lesson in all this is if you are going to get serious about using high quality images, you need high powered software and high powered hardware. As with everything else, quality costs.

Overall, PhotoStyler version 2.0 delivers an easy-to-use package with powerful features for photo and image editing. Although it requires a robust system to get full advantage from its many features, the functionality it provides is among the best available. I use PhotoStyler and can recommend it to those who need a high-end, full-featured image editing package.

MAC-IN-DOS

If you work with graphics files, especially in an online environment, sooner-or-later you will run into the problem of sharing image files between PCs and Macintoshes.

Despite my preaching to anyone who will listen that PCs handle photos and complex graphics better than MACs, most people use Macintoshes for their graphics work. I can't tell you how many people insist that you can't work with photos on anything but a MAC. The MAC proponents are sometimes so passionate that such discussion leads to heated arguments. This is especially true in the newspaper industry where the MAC still reigns supreme when it comes to imaging.

You can fight the problems and carry on what Jack Rickard likes to call a "religious war" over operating systems, or you can simply look for a way to share information between the two platforms.

One of the best utility programs I have found for accomplishing this task is **Mac-In-DOS** from Pacific Microelectronics, Inc.

The program is straight-forward and simple to use. It allows you to transfer files, in ASCII text or binary mode, in either direction between a PC and a MAC. This allows you to share text, graphics, database and spreadsheet files.

Yes, the MAC does have a program called Apple File Exchange that is included with System 7 which does this same job. But, there is a difference.

Apple File Exchange is only for the MAC. It allows you to format and read PC disks. If you have a PC and someone sends you a MAC disk, you are out of luck.

Second, my experience has been that Apple File Exchange is not reliable. I almost can't count the number of times that I have copied files from a MAC to a PC disk only to find later that the file, or files, in question were not readable by the PC.

In my experience, Mac-In-DOS is reliable. The time it takes to copy a file from a MAC formatted diskette to a DOS platform is considerably slower than a DOS-to-DOS or MAC-to-MAC copy, but it is reliable. I have never had a problem reading a file copied with this program.

The program will even read and write MacBinary files. This is extremely convenient when you need to transfer such files via modem. An Encode feature creates a single MacBinary file from the data, resource and finder information files. The Decode feature breaks the MacBinary file format into three separate files for DOS.

With Mac-In-DOS you can format a MAC disk on your PC. You should understand that Mac-In-DOS does not allow you to run MAC programs on a PC, it only transfers files. Both a DOS and a Windows version is available.

Also available is Mac-In-DOS Plus which allows a PC to read/write MAC formatted diskettes, SyQuest 44/88, Bernoulli and Sony magneto-optical drives.

[Jim Thompson is Managing Editor of Western News Service in Los Angeles, California. He also manages the Marlboro Racing News BBS. CompuServe: 72777,2677, MCI Mail: 321-4127, INTERNET: jim.thompson@wnsnews.com]

CONTACTS:

PhotoStyler

Aldus Corporation
411 First Avenue South
Seattle, Washington 98104
Tel: (206) 622-5500
Cost:
\$795.00

ImagePals 2

U-Lead Systems, Inc.
970 West 190th Street
Suite 520
Torrance, California 90502
Tel: (310) 523-9393
Cost:
\$79 for upgrade from PhotoStyler version 2.0
\$129 - Special introductory price for the full version
\$49 - Upgrade from ImagePals versions 1.0 and 1.2

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Mountain View, CA 94040
Tel: (415)948-6200
Cost:
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\$199 - DOS Version
\$495 - Common-Link for UNIX
(allows for workstation users to access Mac and DOS diskettes)

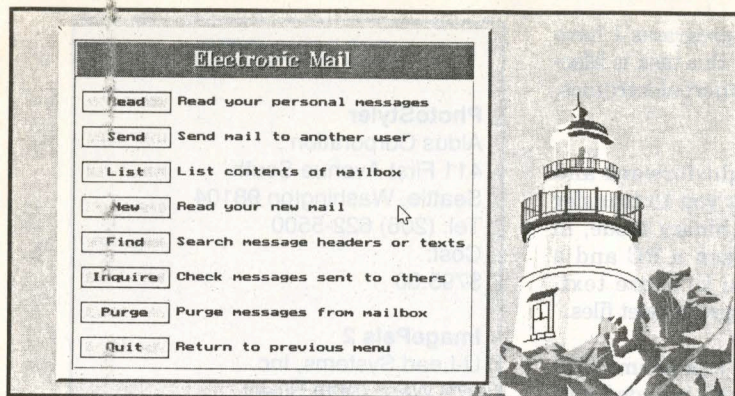
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You can't afford to be just another horse in the race anymore—your BBS program has to help you get ahead of the pack. That's why you need *Searchlight 4.0*.

RIP support—not RIP service

Some choose Windows; others pick OS/2. But everyone loves the dazzling displays, intuitive menus and mouse support that a graphical user interface provides. They don't like giving those features up whenever they call a BBS.

That's why more and more callers use the Remote Imaging Protocol by TeleGrafix—and every BBS program says they support RIP. But all RIP support isn't created equal. Ask these questions to see how your BBS compares to *Searchlight 4.0*:

"Searchlight has incorporated RIP technology to an amazingly integrated level with their BBS...It looks hot."

Jack Rickard
Boardwatch Magazine

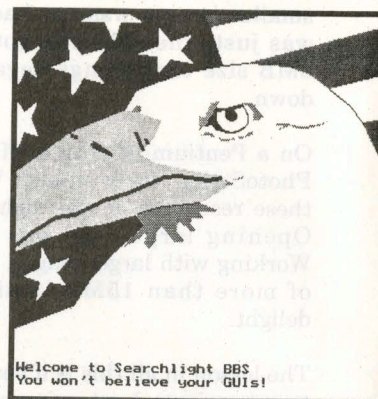
Searchlight

...you won't

Menus
"on the fly"

Local

Searchlight 4.0 lets sysops see RIP graphics...



Can you use your mouse to move up and down a list line by line? Or are you just clicking on buttons that say [C]ontinue, [N]onstop, [S]top?

Can you tag items by clicking on them with the mouse? Or are you still typing line numbers or pressing keys?

Can you confirm a choice by clicking with the mouse? Or do you still have to press Enter?

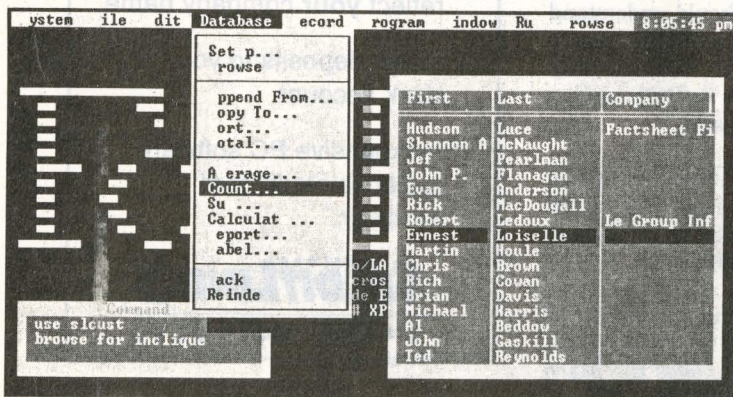
Can you generate RIP menus on the fly—so you can create custom menus in seconds? Or are you stuck with default menus—unless you buy a paint program and spend hours drawing screens?

Can you see RIP? Do you see the same screens callers do, so you can test screens and features locally? Or do you just see streams of meaningless codes unless you call from another computer?

Nobody offers better RIP support than Searchlight Software, Inc. We released the first RIP-compatible BBS in March, 1993. We introduced the first BBS with internal RIP support—featuring pick lists, graphical menus and dialog boxes—last August.

Searchlight 4.0 is the first BBS program with local RIP support. It's the *only* BBS program with a fully graphical user interface.

And on August 17, 1994, we'll release the first BBS program that supports RIP 2.0—so your callers can see JPEG images and hear digitized sound online.



Searchlight 4.0's direct video support lets you run any text-based DOS program as a door

Windows, OS/2, RIP, dBase, FoxPro, Paradox, Clipper, Clarion and Digiboard are trademarks of their respective companies.

BBS

Version 4.0

believe your GUIs

```

!BAT60B872!ZAI69AM5JB55JB8690K
!ZAO6AAT63B063B16A0K!FAX5X00!BBE69BL7S
!ZBE68BU4UCENBUB6S0K
!ZBU6SC26UC362C2750K!BBU75C27S
!ZBU75BX73BU6YB06Z0K!LB06YB06N
!ZB06NB6UBX5UBK690K!FBS5Z00
!ZC15RBY5OBZ82CT7T0K!LCT5QCT65
!LCT7FCT7T!ZCS65CA66C87DCT7C0K!FCD6900
!BCY5RD47S!BD46IDG6U!BDF5RHE7S!c0F
!S010P!BDN5TDU7E!ZDN7ED07NDM7TE37R0K
!ZDU78DS7BDU7GE37D0K!LE37EE37R!FDR7K0F
!BE951EG7R!ZFK62EM4UEC7YF87T0K
!ZFB71FN7OFN7DF0700K!BF66MF06Z
!ZFG6ZFN7MEJ7I2670K
!ZP167F665FD67FG6E0K!LFG6EFK62!FF37L0F
!BFW5IG27R!BG16IG6U!BGC5IGJ7R
!BCP5THB67!BCX68H47R!c00!LECS0EC4I
!LD152FG52!LE34UEM5B!LE35AEM4U
!LE64RE15D!LE75DEH4T!LDZ4ZEP56
!LDX57EQ4Y!LE851EC5!c01!V000000100
!Q0279Welcome to Searchlight BBS
!Q0279You won't believe your GUIs!
!#:#!#

```

RIP file manager

RIP

While other programs can only display RIP codes

Open any door

A hobby BBS might want to install external programs ("doors") so users can play games online. A business BBS might *need* to let users drop to DOS and run a custom application through a door.

Some major BBS developers don't support doors—if you want an online database, you buy their overpriced imitations of dBase. Others make you buy an extra utility—which you have to learn to use—in order to run doors.

Searchlight 4.0 lets you run any text-based program—including databases like FoxPro, dBase and Paradox or applications designed with Clipper and Clarion—as a door. Just set one switch...then forget it. We make running spreadsheets online as easy as 1-2-3.

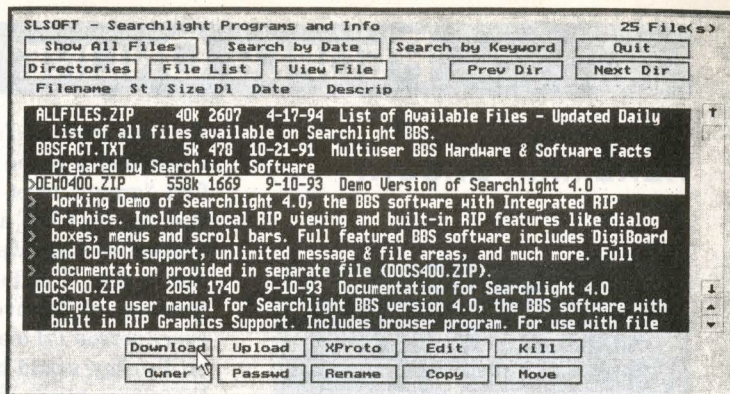
Improvise without scripts

If you're just starting out, you'll want a high-quality interface "out of the box." But when you're ready to customize your BBS, you'll want to be able to change the look and feel quickly and easily.

Some programs make you rewrite their source code if you want to change your menus. Others want you to buy a script language and program in it.

We think our engineers—not our sysops—should do the programming. Our menu editor lets you put any feature on any menu. You can add doors to a menu—or select one of over 100 internal commands.

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When you want a custom BBS, we'll help you build it quickly and easily. With Searchlight 4.0, you can leave the compiling to us.

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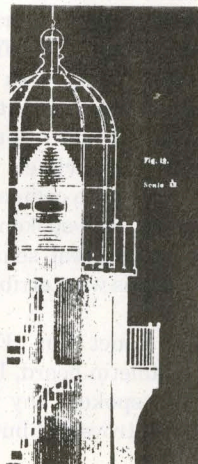
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PEOPLE ONLINE

THE GANG'S ALL HERE...IN PERSON!



by Phyllis Phlegar

When I moved from North Carolina to Colorado in 1991, I convinced my long time buddy to get on Prodigy, so we could stay in touch through email. It took some coaxing, but when she finally logged on, she went whole hog, and found the bulletin boards, and joined one of the groups with a common interest. For months, she told me of her delight at being associated with these fun folks and the great messages that were passing among them. Then, really big news; they would all meet and spend a long weekend together!

I waited with baited BIOS for her report of the big get-together; she must be having the time of her life! How wonderful to meet all those people in person at the same time! Finally, my mail light flashes and there's a letter waiting...was it filled with adventure, excitement, and...juicy gossip about good looking men?

Well...not exactly. She apparently found literally everyone either neurotic, paranoid or just plain weird. And believe me, my girlfriend is a very cool person, who would not make such a sweeping judgement unless there was something behind it.

With my girlfriend's experience in mind, I boarded a plane and headed for my first "group" meet in Las Vegas, where the Casino Chip and Gaming Tokens Collectors Club was having its annual convention. I had steeled myself for the prospect of discovering that each and every person I'd meet from the chip club on Prodigy would be the inspiration for the movie "Back From The Dead And Ready To Party." I put aside chauvinistic fantasies of attractive, well-spoken men with great senses of humor. I mean, come on now, we ALL want to imagine that someone we've been chatting with online is going to be great looking and fun to be with, right? Even if the meeting is not a romantic one. But I knew better than to expect anything, and was emotionally prepared for all those live, and in-person face-to-face encounters. The only saving grace to this whole thing was that there would be collectors from Colorado, who I'd met at one of our statewide meetings. I could hang with them if worse came to worse.

My first "f2f" would be with one of the national group's officers, Michael. He was going to meet me at the airport, and I'd know him by his full head of hair, and handlebar mustache, he said. Oh, and he also said he was a "little overweight." Translation: fat guy with a bad comb-over who was making up for his thinning scalp by growing some facial hair. And from what I could tell from the picture he'd sent me, I was probably right.

Popping out of the gate, I spotted what appeared to be a small version of Michael, at the end of the walkway. Gosh, it actually was him, and, he wasn't fat at all, with tons of hair and hardly a line or wrinkle on his perfect complexion. My first thoughts were "whoa, this was not what I was expecting" and it made me rather nervous! Can you say, "not photogenic?!" Michael, on the other hand, seemed quite calm and self-assured, and frankly, well-spoken and you guessed it, he had a great sense of humor. Good grief, this was terrible!

Next I met Jim. From Jim's posts on the bulletin board, I imagined him to be a soft-spoken, shy kind of guy, maybe even introverted but in a very nice way.

NOT! Jim was bright, energetic, talkative, funny, and frankly, very easy on the eyes. Jim arrived in Las Vegas by car, having hitched a ride with Dick, another chip collector who I'd corresponded with on the chip collecting board on Prodigy.

Another surprise! I figured Dick to be in his early 20s, at that stage of life where you've got so much going on, that it's hard to keep up with everything. I didn't expect the level of friendship and closeness that I felt for him, and that he apparently felt for me; say, this trip was turning out all right!

Since Dick had a car, he and Jim asked if I'd like to cruise downtown Las Vegas with them, to search for chips and other adventures! Off we went, roaming the older casinos and being treated to foot-long hot dogs as we held sway with a near constant stream of jokes and gossip. It was great. I also found out to my surprise that Dick was only a bit younger than me, and Jim, older. But we were all teenagers that day.

That night was the big pre-show chip swap. I showed up, thinking, geeze, what a huge crowd, I don't know anybody...when I saw Michael and Jim. Next thing I knew I was at a table, and we were all looking at each other's "trader" chips and tokens. Then a fellow comes up to the table and Jim recognizes him, and introduces me to Steve.

Okay, I know this is getting predictable, but again I'd guessed wrong! I'd figured Steve to be "all business" and not particularly interested in me; not because of anything he'd said, but I'd heard that he was a serious collector with many valuable chips. And since I was a relative newbie, I didn't think we'd have much to say. WRONG! He presented me with no less than 4 \$5 chips I'd been wanting, and when I didn't have anything special to trade him for them, he assured me that I could simply send him the new Colorado chips, when they came out. He was like that cousin we all have that's always smiling with beautiful, bright eyes, and who gives the best hugs.

Then Scott, another member of the chip collecting gang, came up to the table, and said "You're Phyllis? I thought

you'd be a LOT older!" Well, seems I was a surprise, too. Older? I wonder what he meant by that! Scott was a real cutie, and I don't think he was more than 25 years old. I was impressed with his devotion to the hobby and his desire to be involved.

About this time, a few of my Colorado chip pals came by; one of them said "gee Phyllis you sure seem to know a lot of people." Huh. I hadn't thought of it that way! But I realized that I did truly know a lot of these people, and all of it because of our "club" online, where I'd been posting for about eight months. And we'd all mailed each other chips, and regularly exchanged "the latest" news in the chip collecting world, like new casinos, closed casinos, new chips and the like. A lot of these people had been posting online for years, and had met each other at earlier conventions.

The convention opened the next day, and was a full three days of swapping, selling, buying, bidding, gambling and talking, talking, talking. And almost no sleeping. I also met lots of other great folks from Prodigy, NVN and CompuServe. But I found that by chance or design, most of my time was spent with Jim, Dick, and Michael, and occasionally Steve, Scott, and a few folks from the Colorado gang.

In one incident that sticks with me, I was just outside the convention hall when I saw Jim, Dick and Steve huddled together, all peering through books of chips. They waved me over and said



"we're just doing a little male bonding." And then, invited me to join in. They were so charming, like big kids having a ball in the playground.

By the time the three day convention was over, I realized what a terrific time I had had, and was grateful that we could all "see each other" again online. Dick took me to the airport, where I fought back tears, as he was the last person I'd said goodbye to. Actually, he should have been the one crying; he and his wife had been up almost all night, and he'd gotten only a few hours sleep; but

he wanted to be sure that I arrived at the airport safe and sound.

On the way home, I rattled on endlessly about my trip and how great it was to be online, to anyone sitting near me, either in the terminal or on the plane. And while I was glad to be home and see my husband, I still missed everyone, even after getting back online and posting a few notes. Wow, I wonder what my girlfriend in North Carolina would say about this? Excuse me, I need to go and write her an e-mail....

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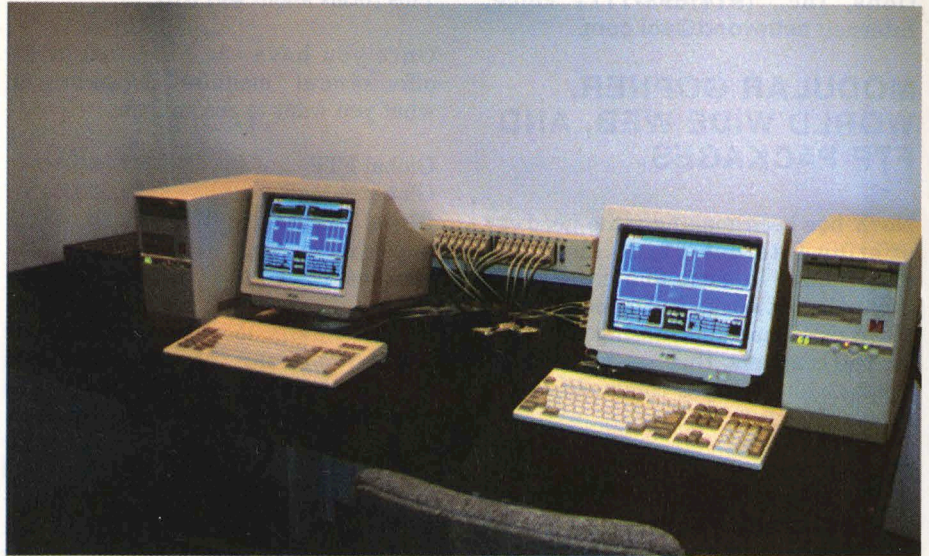
ESOFT OPENS FTP/TELNET ACCESS

eSoft Inc., developer of The Bread Board System (TBBS) BBS software has announced that they have opened their product support BBS for access over the Internet by ftp or telnet to esoft.com. They believe they are the first BBS software vendor to do so entirely using their own products.

The connection consists of a 1.544 mbps leased line from their facility in Aurora to a group called "The Co-op" in Boulder Colorado and from there to the Internet backbone via Sprint. eSoft is currently developing a product called the IPAD (Internet Protocol ADaptor) that will act as a connection device for their TBBS bulletin board product. The product is designed to ship as either software or an integrated hardware/software solution with the software, PC, and CSU/DSU card necessary to plug directly into the T1 wall jack. No router is necessary as the system handles all routing chores, provides ftp and telnet access both into the BBS, and allows BBS callers to telnet, ftp, ping, finger, and so forth out of the BBS. Additionally, it will include Simple Mail Transport Protocol (SMTP) and NetNews Transport Protocol (NNTP) servers to directly send and receive electronic mail and USENET news postings over the link.

The device we saw was a 486-66MHz PC in a baby tower, connected both to the office LAN and to the BBS by a series of serial cables. According to Becker, the IPAD is intended as a plug-and-play solution to connecting any BBS to the Internet without all the mystery. They intend to put together a package demystifying the act of ordering SLIP, 56 kbps leased line, or T1 links to the Internet. Once the lines are installed, you should be able to connect a cable from the IPAD to the wall jack, and some serial cables to the BBS, and go to it.

And if the eSoft support BBS is any model, it looks pretty simple. Two baby AT case computers, each 486-66 MHz models sit on a single Spartan table in a meeting room to provide 12 dialup telephone lines at (303)699-8222, 10 null-modem serial connections to other machines around the office for employees to logon to the system, and



TBBS Product Support BBS (left) and Internet Protocol Adaptor (IPAD) right.

currently four serial connections to the Internet. The system will eventually support up to 32 simultaneous Internet connections from a T1 line. You can reach the system now by telnet **esoft.com** or by ftp to **esoft.com**. Contact eSoft, Inc, 15200 East Girard Ave., Suite 3000, Aurora, CO 80014; (303)699-6565 voice; (303)699-6872 fax; (303)699-8222 BBS.

E-MAIL ADDRESSES OF THE RICH AND FAMOUS

It had to happen. With the current onslaught of Internet books, everyone's looking for an angle. Seth Godin has apparently found one with his new book, *E-Mail Addresses of the Rich and Famous*, published by Addison-Wesley at \$7.95.

The book was introduced in mid-May ostensibly to allow "cyber schmoozers" to share their ideas with people of influence. The author claims the book helps users of electronic mail locate and engage in conversations on-line with leading politicians, authors, academics, reporters, programmers and other well-known personalities. The book features luminaries such as Ed Asner, Tom Brokaw, Bill Clinton, Bill Gates, Ross Perot, Dave Barry, and others.

At \$7.95, how wrong can you go? But the entire premise of the book is a little misleading. Yes Bill Clinton has an e-mail address. He's never seen it,

read any mail from it, or responded to any e-mail, but technically it is purported to be his e-mail address. If you expect to open a dialog with Ross Perot, as the result of your \$7.95, you're likely to be disappointed.

More seriously, we suspect a few actual working e-mail addresses may have actually slipped into this book - which lists over a thousand. And we suspect the premise is not really one of "allowing cyber schmoozers to share their ideas with people of influence," but rather the encouragement of electronic e-mail muggings - assault with a deadly keyboard and general ASCII mayhem. If you are a notable, and do have an e-mail address, someone may publish your address in a little book and several hundred new messages will show up in your mail box each day.

Rumor has it that movie critic Roger Ebert, who does sport a CompuServe address, has complained bitterly about the book and the publication of his e-mail address already. And according to Seth Godin, it is true that they did not get anyone's permission to publish their e-mail address. But they did use only addresses that appear somewhere on the network in a public conference, and he insists they aren't out to "out" anybody electronically.

The question this brings up is that if you post a message in a public conference somewhere, it might be published more widely and in different ways than

you expected. And you may wind up forced to change e-mail addresses - early and often. Seth Godin Productions, Inc., (914)693-7711 voice; Internet: sethwood@aol.com.

MODULAR GOPHER, WORLD WIDE WEB, AND FTP PACKAGES

NovX has been making some headway offering Internet T1, 56 kbps, and dialup links in some 300 cities using Sprint's network. But according to Marc Goodman, marketing manager for the company, they see the connections as ultimately a commodity business.

One of the things NovX is doing to put some value-added component to their business is vaguely characterized as "integration." The better part of it is Internet in a box.

The company has announced the "Global" series of modular components to create an Internet site, and the company sees a future in providing a more standardized solution to the wave of businesses that want an Internet presence, and aren't too keen on going into the computer business. The way much of this business has been done in the past is through the now swelling ranks of UNIX "consultants" whose solution is for you to give them a job and they'll come cobble something together if you put them on the payroll.

Undoubtedly, any Internet installation requires some significant tailoring, but NovX appears to be making an effort to create at least an a la carte shopping list of off-the-shelf items to put up electronic mail, ftp sites, a gopher server, or a world wide web home page server for those who basically want to write a check and make an Internet site appear. They call them NovX Global Servers.

The basic package starts with SUN compatible hardware and UNIX.

Hyundai Axil 311, model 5.1 Sparcstation compatible - 50 MHz, 64 MB RAM - **\$18,400.**

External Drive Array - Seagate 4.2 GB SCSI-II **\$4845**

APC Smart UPS 1250 uninterruptable power supply - **\$875**

Exabyte 8500 10 GB tape backup unit - **\$3195**

This totals about **\$27,315.**

Once you have the hardware, they offer several "modules" depending on what you want to accomplish:

Global FTP	\$2,500
Global E-Mail	\$9,500
Global World Wide Web	\$9,500
WAIS-Server	\$15,000
Global-Gopher	\$9,500

The company is very enthusiastic about WWW and their server has all the video, graphics, and sound bells and whistles to make use of Mosaic. Mosaic is a multimedia interface for WWW developed at the National Center for Supercomputing Applications (NCSA). According to Goodman, there are more than a million Mosaic users out there, which we would question, but notes that they have been ftp'd from the NCSA site at the rate of some 200,000 per month.

To pick an obvious package, if we wanted the hardware, ftp, e-mail, and the Global World Wide Web package, they could do it for about **\$48,815** (plus Internet connection charges). Good work if you can get it. NovX Systems Integration, 316 Occidental Avenue South, Suite 406, Seattle, Washington 98104; (206)447-0800 voice; (206)442-9004 fax; Internet: info@novx.com.

PRONTO REMOTE PC ACCESS TO UNIX MAIL

We've been looking for a good USENET News and E-mail program for MicroSoft Windows that uses UUCP to exchange mail with a UNIX host. We're still looking unfortunately. But CommTouch software has developed a program that for some users may actually be more useful.

PRONTO Remote Access to UNIX Mail doesn't do UUCP dialup sessions to exchange mail, and it doesn't do newsgroups. It is meant as an offline access to a UNIX dialup account, to allow you to read and write messages in Windows offline. Mail is then delivered by dialing up the UNIX host service using a script, and then automatically "synchronizing" its message folders with your mailbox on the UNIX system. The advantage here is greatly reduced connection time to the service, and of course an easier to use mail

editing environment with spelling checkers, message folders, and some basic mail filtering features.

The program includes a modest script language to get you onto your host and to the UNIX command line. From there, it uses Zmodem to transfer data necessary to coordinate the local message folders with the UNIX message folders.

Because the program is basically simulating your normal manual call to the host, it does not require any additional configuration on the host end. Unlike UUCP accounts, it does not require a UUCP name for your system, another for the host, domain registration, etc. It's a simple program to provide an interface to UNIX mail systems. If you normally dial into a UNIX host to do mail, this program certainly puts a nice face on it. Price is **\$149**. CommTouch Software Inc., 1206 W. Hillsdale Blvd., Suite C, San Mateo, CA 94403; (415)578-6580 voice; (415)578-8580 fax; Internet: pronto@commtouch.com.

PRETTY GOOD PRIVACY E-MAIL ENCRYPTION PROGRAM VERSION 2.6 RELEASED

One of the more controversial programs on the Internet has been Phil Zimmermann's Pretty Good Privacy Program. This software was released as a free program, with source code included, to encrypt electronic mail using the public key model and the RSA encryption algorithm currently considered king of the hill in the data encryption world.

The program had a couple of controversial elements. It was designed to protect the privacy of e-mail, and there are those within our government that aren't really comfortable with the concept of a citizenry capable of communicating without the government able to eavesdrop on the conversation. There are export laws banning the export of encryption technology. By posting the free program with source code on the Internet, it was available within minutes in countries all over the world. No one actually exported it, but somehow the export restrictions didn't work very well.

But more practically, it used a software algorithm that was patented by the Massachusetts Institute of Technology (MIT) and licensed to RSA Data

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Security. As such, there was a patent infringement in PGP that no one really knew quite how to deal with. Zimmermann didn't sell PGP, so there was no money to go after. It had already been released, so there was nothing to really "stop." And anyone who actually used the program was technically guilty of patent infringement as well.

After much fighting and carrying on, a bit of a settlement has been reached, and the results are high comic farce on the Internet. It is just too precious.

PGP Version 2.6 has been released with the offending algorithms replaced by licensed algorithms from the RSAREF Cryptographic Toolkit distributed by RSA Data Security, Inc. PGP 2.6 is fully licensed for non-commercial use by MIT and RSADSI. But the program has a built in calendar expiry of September 1, 1994. After that, it will still work, but it won't decrypt messages created with the existing PGP 2.3. This is intended to force the world to "upgrade" to version 2.6, and thus eliminate the offending version 2.3 by expiring the 2.3 message format.

MIT itself is actually distributing the free program with source code from their Internet site. But then there still is the matter of export control laws. And they've dreamed up a distribution process so comical, that everyone should get PGP 2.6 just to see it in action. It illustrates better than anything we can say, the farcical aspects of some of our legal concepts in the coming electronic world.

MIT DOES have an ftp site for PGP. ftp [net-dist.mit.edu](ftp://net-dist.mit.edu) and change directories to `/pub/PGP`. The documentation for PGP is there, along with the license text from MIT and RSADSI. A README file describes how to get the program itself. So the first step in this mindless treasure hunt is to ftp to the site, and do a GET on the README file. The README file basically tells you that PGP falls under export control, and so you must be a U.S. citizen to get the program. It then instructs you to **TELNET** [net-dist.mit.edu](ftp://net-dist.mit.edu) and login as **getpgp**. When you do that, it asks you four idiotic questions basically of the form: Are you a U.S. resident? Are you sure? Now really - tell the truth - are you in the U.S.? Now you know you can't have it if you aren't. Do you agree not to give it to anyone outside the U.S.? And do you agree not to use it for anything useful?

If you answer yes to each of the questions, it then tells you which hidden directory PGP 2.6 is located in. In our case it was in `/pub/PGP/dist/U.S.-only-3d39`. Ostensibly, the last four digits of this hidden directory will change on some random basis. It's all too precious for words. This is what the world of spookdumb looks like to an Internet culture based on openness. Undoubtedly, it's to have some effort to point to when the State Department comes calling - "See, we made sure it wouldn't leave the country - they said they were local."

In any event, as long as you are a legal U.S. resident, and as long as you don't use it for any commercial purpose, and as long as you don't send it to anyone outside the U.S., you can now use Pretty Good Privacy to encrypt your e-mail with a clear conscience. We can all sleep better now.

IDT OFFERS FREE INTERNET ACCESS WITH LONG DISTANCE SERVICE

International Discount Telecommunications has announced that effective June 15, 1994, it will offer free Serial Line Internet Protocol (SLIP), Point to Point Protocol (PPP) or UNIX shell accounts to all long distance telephone service customers.

The company is known for somewhat innovative programs. They first made sway with a Foreign Call Back program that earned it the ire of AT&T in an FCC hearing. The program was based on the fact that long distance rates from most countries to the U.S. were about three times as expensive as long distance rates from the U.S. to the same country. They provided a number in the U.S. that you could call and immediately hang up. It would automatically call you back at your foreign location, and provide a kind of touch-tone command line allowing you to make calls. The program brought the company thousands of international callers.

According to IDT's 37-year-old president, Howard Jonas, one of the most persistent problems faced by all long distance companies is "churn". Customers will virtually switch long distance carriers for a free barbecue sandwich and a coke. By offering all long distance customers free e-mail and Internet access, the theory is that

this will bond the customers to the long distance discounter and so reduce churn. They started the program three months ago with their existing clients, and it proved so popular they are now publicizing it widely as a way to build customer loyalty.

There are no charges for the service, but callers do have to reach the company's site in Hackensack New Jersey. They can do this either by dialing the 201 area code direct and paying normal LD costs, or by dialing a special 800 number which is billed at 8 cents per minute. Since they are the long distance carrier, they at least pick up a little that way.

The accounts can be a full UNIX shell account, a SLIP connection, or a PPP connection. According to Max Robbins, their technical director for the service, they will happily set up a separate UNIX shell account for every employee in your company if you like. For SLIP or PPP, they do have a very easy to use software program they will make available at \$55.

The company claims long distance rates about 40% lower than most other business economy plans. The program is available to anyone in the continental United States. Contact International Discount Telecommunications, 294 State Street, Hackensack, NJ 07601; (201)928-1000 voice; (201)928-1057 fax; Internet ga-loa@ios.com.

NETCASH - ONLINE POCKET CHANGE

In our January editorial, "Mister Can You Spare a Chicken", we railed a bit about the need for online cash. We actually received a tremendous response to this editorial, virtually all of it bad, and most of it extremely lengthy. We received several 80 page recommendations. Most of them centered around a fascinating concept of doing away with money completely, and wishing all of ourselves to be rich by grace. I do recall a similar fancy at about age eight, but it isn't really what we were after here. A few were lengthy treatise on encryption schemes too horrible to contemplate. Death by complication. Several involved magical hardware devices someone else should design and build.

We did receive ONE proposal by electronic mail that we just have to tell you about. A tiny consulting firm in Germantown Maryland has been

toying with the idea of online money for about a year. Not money in a big sense, but in precisely the way we pondered the matter - pocket change to buy little things online. And it makes a good swag at our nine requirements for online money.

The idea got started last year when Bob Houston came across a guy who was selling a complete cross-reference index for one of the obscure magazines Houston collects. The gentleman had apparently typed in the table of contents of every back issue of the magazine, and was selling it on a floppy disk for \$2 plus postage and handling. Of course, the postage and handling costs very nearly equalled the \$2 and since this was a computer related magazine, Houston thought there was a very real possibility the guy had an e-mail address. If there was some way of convincing the guy he had paid him the \$2, he could have the index almost immediately, and there would be no postage and handling, or mail delays. But there wasn't.

Houston heads a tiny consulting and programming firm titled Software Agents, Inc., specializing in the use and training of "object oriented software technologies." But a part of their business is in autonomous information processing systems - little info servers and such. So he thought they ought to be able to come up with a pocket change vending machine running from a UNIX system - an e-mail money system.

So they came up with the idea of Netcash and the NetBank. Netcash is simply a string of ASCII characters and looks like this:

NetCash \$1.00 E1234H5678Z

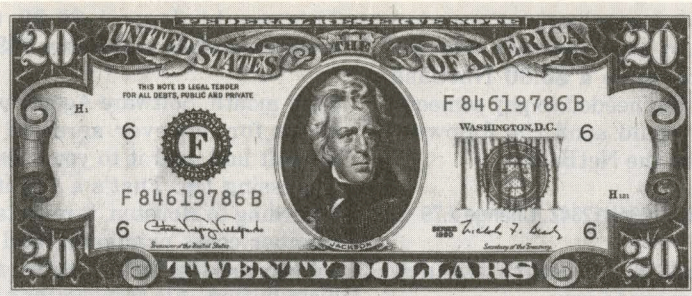
HOW DO YOU GET NETCASH?

The easiest way to get netcash is for someone to give it to you. If they send you the string of characters, you have it. To confirm you have it, you address an e-mail message to **netbank@agents.com**. In the body of the message, you include the cash with an **ACCEPT** request.

NetCash \$1.00 E1234H5678Z /Accept

The system will check the validity of the string, and reply with a return message that looks like this:

NetCash \$1.00 E54466122A



What has happened is that you have basically "retired" the NetCash someone gave you, and been issued new and secret NetCash in the same amount. If you don't reveal the new serial number, only you have it. Since the old number is retired, no one can use it again. And no one should know your new string, so you have it.

You can put multiple transactions in a single message. Sent to NetBank:

From: merchant@store.com
To: netbank@agents.com
NetCash \$ 10.00 J71102302A /Accept
NetCash \$ 10.00 K52286154A /Accept
NetCash \$ 5.00 M71129532A /Accept

Reply from NetBank:

From: netbank@agents.com
To: merchant@store.com
Subject: NetBank Receipt, Accepted: 3, Rejected: 0
Input Transaction(s):
Accepted: NetCash \$ 10.00 J71102302A /Accept
Accepted: NetCash \$ 10.00 K52286154A /Accept
Accepted: NetCash \$ 5.00 M71129532A /Accept
Total Accepted: \$ 25.00
NetCash \$ 20.00 L98002387A
NetCash \$ 5.00 K09662110A

In this case, you accepted two tens and a five, and were issued a crisp new twenty and a fiver in return.

If you try to spend NetCash that has already been spent, it will be rejected.

Sent to NetBank:

From: joe@podunk.edu
To: netbank@agents.com
NetCash \$ 10.00 K52286154A /Accept

Reply from NetBank:

From: netbank@agents.com
To: joe@podunk.edu
Subject: NetBank Receipt, Accepted: 0, Rejected: 1
Input Transaction(s):
REJECTED: NetCash \$ 10.00 K52286154A /Accept
Total Accepted: \$ 0.00

Where does NetCash come from initially? From a 900 number of course. If you dial **1-900-933-CASH** (2274) with a modem, in a call of less than a minute you will be issued a \$10 NetCash string. You will also be charged **\$10** on your telephone bill. There is no transaction charge to buying or using NetCash. More on this in a bit.

MAKING CHANGE

NetCash can technically handle any denomination up to \$100. But it's designed for the \$1, \$2, \$5, or even .25 cents work. Since all transactions are machine processed, there are no particular administrative costs in the system to preclude very small purchases. But it is a bit awkward to make change, although doable.

If you receive a wide variety of netcash purchases, you can certainly make change directly with someone else. They hand you a netcash \$1, and you hand them three NetCash quarters. You each do an /Accept and you're both whole. But as any retail store owner will tell you, you have to get change from the bank to do business as it seems to flow one way - out to your customers.

To break larger denominations into smaller ones, you again send a message to **netbank@agents.com**. Sent to NetBank:

From: bill@podunk.edu
To: netbank@agents.com
NetCash \$ 20.00 E54466122A /Change 1 Ten 2 Fives

Reply from NetBank:

From: netbank@agents.com
To: bill@podunk.edu
Subject: NetBank Receipt, Accepted: 1, Rejected: 0
Input Transaction(s):
Accepted: NetCash \$ 20.00 E54466122A /Change 1 Ten 2 Fives
Total Accepted: \$ 20.00
NetCash \$ 10.00 L73522979A
NetCash \$ 5.00 J83662917A
NetCash \$ 5.00 M32299134A

While round denominations are nice, the bank can make further change. Suppose you have a **\$5.00** NetCash coupon and you needed to pay someone **\$2.79**. You would send the following transaction to the NetBank:

NetCash \$ 5.00 E1234H1234Z /Change 2.79

The NetBank would return two new NetCash coupons to you:

NetCash \$ 2.79 E1234H1234Z
NetCash \$ 2.21 E1212H3434Z

You can now spend the **\$2.79** coupon and keep the **\$2.21** in your "pocket."

Likewise, if you had a bunch of small NetCash amounts, you could send them to the NetBank to be summarized into a single NetCash coupon:

NetCash \$ 0.21 E3434H3434Z
NetCash \$ 0.79 E4545H1234Z
NetCash \$ 2.21 E1212H3434Z
NetCash \$ 3.47 E2323H1234Z

would be returned as:

NetCash \$ 6.68 E5656H1234Z

CASHING OUT

You can accept NetCash, spend NetCash, and do so for years without ever losing anything. You don't have to "qualify" to use NetCash and in fact, although accepting NetCash does reveal your e-mail identity, it is relatively anonymous. But ultimately there is a piper to pay. What if you have become a veritable online millionaire in NetCash, but your significant other informs you that they are going to take the house if you don't come up with some non-NetCash pretty quick. Or perhaps you want to buy Pall Malls and they aren't available online. For it to be real money, it has to be transferable. Houston uses the analogy of foreign currency. There is a conversion fee. Because of the 900 number charges by the telephone company, it's a pretty handsome one. But maybe not too terrible.

To convert, you must have a "merchant account" number. Anyone can have one, you just have to fill out an e-mail form and send it in. There is no charge for setting one up. To put NetCash in your account, simply enter a deposit statement.

NetCash \$5.00 E4321J8765W /Deposit 123456

This would deposit **\$5.00** to your account number, in this case **123456**

Each month, Software Agents will cut a check for however much is in your account and mail it to you - less a **20%** processing fee. That's a mighty pricey. According to Houston, it reflects the 900 number costs primarily, and they're actively looking for alternative means of distribution. All transactions are cost free until it comes down to the conversion of NetCash to real cash. He's looking for a less costly way to issue NetCash than the 900 number. But so far, it looks like a **20%** surcharge is going to have to be there for it to operate. We suspect this could lead to some NetCash inflation, as vendors try to recoup the NetCash **20%** penalty, and possibly two prices, one for real money, and a NetCash un-discount.

It also leaves a rather largish hole of others to drive into. If you accept NetCash as payment for products and services, and only receive **80** cents on the dollar if you cash it in, doesn't this rather encourage you to sell NetCash to your other customers who have MC/Visa for example at **90** cents on the dollar? This wide margin will likely prove to be NetCash's soft spot.

WILL IT GET OFF THE GROUND?

Tough to tell. Software Agents, Inc., is not BankAmerica - a tiny outfit really. But the program was just opened for real last month and about a half dozen merchants are using it. Sales volume on the 900 line is about **\$60** daily at this point. It would certainly work in the nickel-dime-quarter world. You spend \$10 and have enough NetCash for the next six months if you are buying stuff at a quarter a pop. Will it work for BBS charges of \$50 per year or so? It might. If you tell a caller to dial a 900 number by modem five times and give you the ascii string that comes out, I don't know what the reaction would be. But it's an interesting concept. And the point is to provide a lesser world of pocket change. Instead of a year's access, how about access for this month at \$10? Or this week at \$5.00? How about access for tonight at \$1?

In fact this opens up a whole area of BBS vending machine applications that were just too gruesome to contemplate previously. Credit card charges are usually not practical in increments less than \$5.00 or \$10.00. So tiny items on bulletin boards such as e-mail message charges etc. were typically handled by a system of "credits" good only on the

local system. NetCash provides an opportunity for a universal "credits" system that would operate across ALL bulletin boards. A BBS could sell \$5 worth of NetCash coupons for a \$5 credit card charge and offer a bevy of interesting little items, or even allow other callers to offer interesting little items, at \$0.25 a pop. If a caller buys \$5 worth and only spends a buck, it would probably be OK if the remaining \$4 was actually usable elsewhere on OTHER bulletin board systems as well.

There have been 900 number services come and go ostensibly with the solution for BBS operators. But the addition of the e-mail NetBank and the extensibility of the numbers to a virtual currency that can actually float around in CyberVille for weeks or months moving from one hand to another is profoundly intriguing. If the money gets into the system and is believed (as long as we're talking about less than \$10 I'll believe anything) it could work.

Let's return to the nine requirements from our January editorial:

1. IT MUST BE INCREMENTAL.

We're in here. Increments from one cent to \$100.

2. IT MUST BE FINITE.

Pretty good action on finite. You give it to someone and they accept it, you don't have it any more, and they do. Potentially, there is a problem in that it isn't instantly finite. There is some period between when the buyer hands the seller the string, and when the /Accept is performed to retire the earlier serial number and issue the new one. But it's as small as you might like it to be.

3. IT SHOULD BE ANONYMOUS.

To spend or accept NetCash is relatively anonymous. You cough your e-mail account name to /Accept. But NetBank doesn't need to know anything about you at all other than your e-mail address. Translating NetCash to real cash requires a Merchant Account which is a little cozier - a social security number and mailing address is required, but if you deal entirely in NetCash as an online currency, there is little record of your existence.

4. IT MUST BE PORTABLE.

It is portable. Compared to handing over a piece of printed paper money, it's a little awkward. This might be improved with software tools. We did like the fact

that there's no little hardware gizmo or card involved here.

5. IT MUST BE UNRESTRICTED IN USE.

Looks quite good actually. You can't even tell what it's used for.

6. IT SHOULD BE NON-DIRECTIONAL.

Anyone with an e-mail account can give and accept NetCash. In its own world, it is quite cash-like. A merchant account is required to convert to real money, but there is no qualifying for it other than to have a street mail address to send the check to. Looking pretty good.

7. IT MUST BE IMMUNE TO FRAUD.

If NetCash has a problem, it will likely be found here. Actually, I guess there's a problem with real cash and with credit cards as well. But this area is probably NetCash's real vulnerable point.

If I /Accept some NetCash, and squirrel it away in my mattress for a rainy day, and someone else guesses the serial number of some NetCash and does an /Accept on it, I lose mine, and I don't even know it's no good until I try to spend it months later. According to Houston, they monitor for a large number of failed transactions from any e-mail address, and the 11 digit numbers are reasonably hard to guess in relationship to the small number of real ones issued.

It becomes a little unlikely anyone would set up a program to guess serials in order to get issued \$3 in NetCash. The low denominations make it a little like breaking into Fort Knox in order to steal a couple of Cokes and a packet of Oreos out of the lobby vending machine. But our experience with the online community would indicate that if Fort Knox were actually online, you'd probably have to wait in line for your crack at the machine. NetCash is destined to be almost an "attractive nuisance" in some sense.

Data on the network is not very secure itself though. We would make, and have made a couple of recommendations that might help, though it's unlikely to be foolproof:

a. Incorporate data encryption after the fashion of using the Pretty Good Privacy Program to encrypt e-mail correspondence with NetBank. Should be pretty minor software change to the NetBank system.

b. Increase serial number length to the 16-18 range.

8. IT SHOULD BE BELIEVABLE

This one is tough to evaluate on concept. Who would have believed Intel could sell us on the concept that a 586 was really a Pentium? They did it. A big part of it is cybernaut acceptance. If enough merchants have products of value, but products that they don't take a bath on if defrauded, they'll probably try it. (Buy my dirty limericks for a quarter.) If enough merchants note that they will accept it, the 900 number call is pretty easy. It could go. Time will tell.

9. IT SHOULD BE SIMPLE.

NetCash is a little awkward. It's basically simple enough, but requires a lot of e-mail message to accept some money. Compared to putting the quarter in the machine, it's a little rough. But operation really isn't too difficult. A grade of B- here with potential to improve through software. A TSR popup purse? A Windows clipboard purse function? Doors for bulletin boards? Online coin changers are bound to happen. If the cash catches on, a whole new string of software programmers can have a new frontier.

Compared to a number of schemes we've seen proposed, and some actual plans for digital money, NetCash is quite simple.

The bottom line is that if the net wants it, it can be made to work. If the trade is in ethereals such as information, at pocket change prices, and a body of people get enthusiastic about it, it could work very well. Under those conditions, fraud is less of a concern. So one guy bilked me out of a copy of my dirty limericks. I'll live in rage till I get over it. Or send a thousand machine generated flame messages to his e-mail address to get revenge. Or Software Agents goes out of business and I'm left holding the worthless \$2.85 I have left from my original \$10 call four months ago. We'll borrow money to eat.

But if it works at all, the natural tendency will be to try to extend it into areas where it was not designed to go. This may work against it in the long run.

We're willing to give it a shot on a provisional basis. If you want to subscribe to Boardwatch at our usual \$36 by e-mail, send your NetCash to subscriptions@boardwatch.com with your mailing address for magazine delivery.

You can get an information file on NetCash by sending e-mail to netbank-info@agents.com. Software Agents, Inc., PO Box 541, Germantown, MD 20875; (301)601-4362 voice; Internet: rkh@agents.com.

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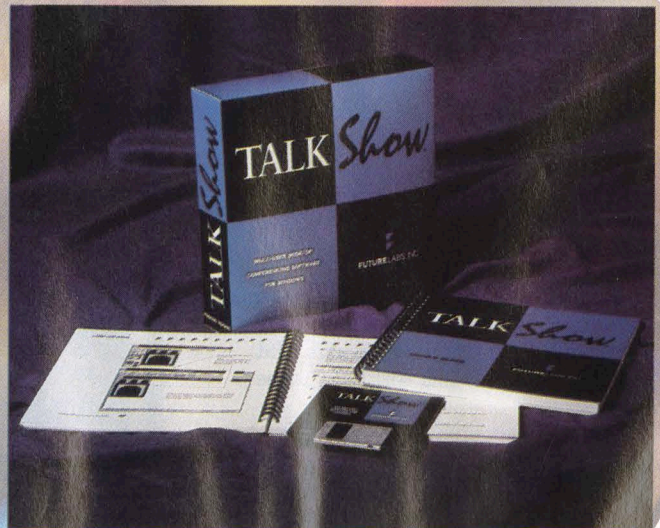
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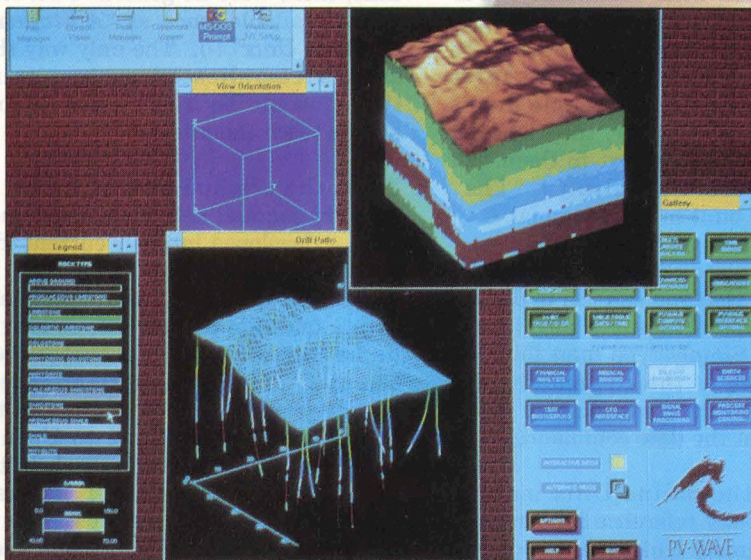
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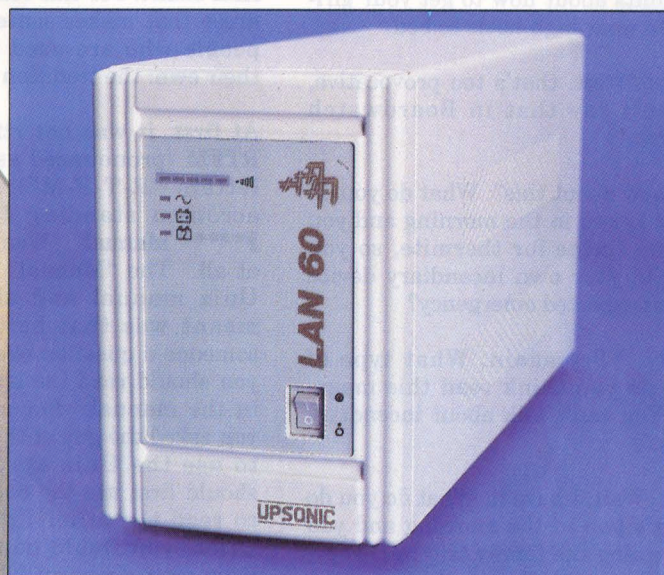


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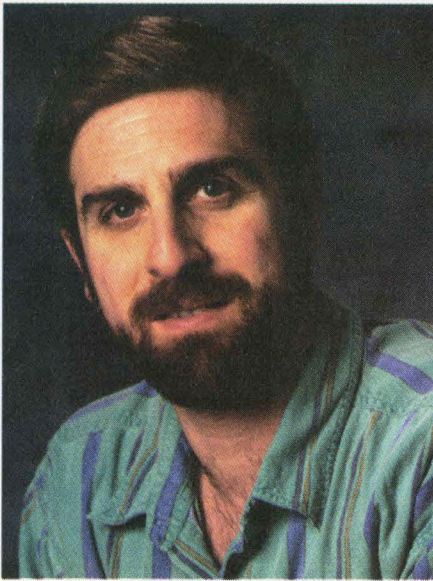
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JUST THE FAQs, MA'AM



by Harley Hahn and Wendy Murdock

What do you do when it is two in the morning and you need some quick hints about how to get your girlfriend to wear high heels to bed?

(Wendy: "Wait, that's too provocative, you can't say that in Boardwatch Magazine.")

Okay, how about this? What do you do when it is two in the morning and you need the recipe for thermite, so you can build your own incendiary device for an unexpected emergency?

(Wendy: "Try again. What type of people do you think read this magazine? You can't talk about incendiary devices.")

Alright. Wait, I have it. What do you do when it's two in the morning and you are planning the family trip to Disneyland, and you need some hints on the best strategies for avoiding large lines?

(Wendy: "Much better.")

The answer to all these questions, actually — as well as a lot of other esoteric information — is available simply by reading FAQs.

What are FAQs? Nominally, the name "**FAQ**" stands for **F**requently **A**sksed **Q**uestions, but there is a lot more to it than simple answers to basic questions. FAQs are an important part of life on the Internet, but to appreciate what they really are, you need to understand the philosophy of **rtfm**, so let's start there.

The Internet and Usenet grew out of the worldwide Unix community. For many years, Unix was taught orally and passed on from one person to another. In the early days (the 1970s and early 1980s) most people didn't use Unix books; rather, they learned from the guy sitting next to them. Of course, there was always "The" manual: the built-in Unix manual.

(All Unix systems have a program named **man** that you can use to display documentation about a particular command. Simply type **man** followed by the name of the command. For example **man date** will display information about the **date** command.)

However, the online Unix manual contains mostly reference information. People learning Unix still needed to have someone nearby who knew more than they did.

Now, (in those days) almost everyone who used Unix was pretty smart and the people who were developing it were ALL smart. For this reason, a tradition arose that makes sense for intelligent people who are used to working on their own: the tradition of **rtfm**.

At first, it was not **rtfm**, but simply **RTFM** (pronounced as four separate letters "R-T-F-M"). This was an acronym standing for "**Read the F***** Manual**". Was this rude? Not at all. The "Manual" was the online Unix manual and all that **RTFM** meant was that before you asked someone a question about a command, you should read the appropriate entry in the manual. For example, before you asked the guy at the next desk how to use the Unix **cp** command, you should first use the command **man cp** to read the official documentation. Often, you would be able to answer your own question. In any case, by reading the manual first, you would learn all kinds of other things about the command. The person you asked for help would at least be able to assume that you read the official description of the command (even if you didn't understand all of what you read).

As time passed and the world of Unix grew, the idea of **RTFM** developed into a philosophy of trying to solve a problem for yourself before you asked someone else for help. You can see why this was such an important idea: Unix was spreading from university to university, and there was no money or motivation to teach it formally to a

mass of people. Moreover, at that time, there were no general Unix textbooks available (such as "**A Student's Guide to Unix**" :-). The only way that such a complicated system could thrive, would be if the users learned how to teach themselves.

Thus, the original idea of **RTFM** — read the manual before asking a question — developed into our current idea of **rtfm**: that anyone has a right to expect an experienced user to help him with a question or problem, as long as he has already tried his best to help himself. The idea of **rtfm** spread rapidly from the world of Unix to the Internet and from there to Usenet. Today, the word **rtfm** (which is the longest word in the English language without a vowel) is used most often as a verb. For example, you might see a question in a Usenet discussion group in which the person says: "I tried **rtfm** but I couldn't find a solution". As any experienced Internet user can tell you, the reason the whole thing works so well is that many people do their best to teach themselves and, once someone has **rtfm'd**, just about anyone is willing to take the time to help further. The Internet and Usenet could not exist as they do without **rtfm**, because it is just not possible for everyone to be taught what to do by someone else. Most of what you will learn, you will have to find out for yourself.

Once Usenet (the worldwide system of discussion groups) started to become popular, it wasn't long before the experienced people found that all newcomers tended to ask the same questions. For example, everyone who starts to learn Unix eventually starts to wonder things like "What does the name Unix mean?" or "Is there any way to recover a file that I deleted accidentally?". (The quick answers, by the way, are "nothing" and "no".) Time and again, neophytes who started to read the Unix question-and-answer discussion group would ask such questions. The same thing happened in every discussion group no matter what the topic: sex, religion, politics, Disneyland, and so on. It was fine to tell the new people to **rtfm** but how could they? What was there to read for beginners?

Finally, someone got the idea of creating a list of questions and answers, and posting them regularly to the discussion group. Now, new users could be told to not ask any questions until they had read the list of regu-

larly-posted questions and answers. This idea was such a good one that it wasn't long before many popular groups had their own set of questions and answers, called a "Frequently Asked Question List". Today, such lists, referred to as FAQs, are common and it is implicitly assumed that all newcomers to a discussion group will seek out and read the FAQ before posting their first article.

The wonderful thing is that, as FAQs developed, they became the repository of all manner of fascinating and miscellaneous information; far more than simple answers to the most commonly asked queries. Nowadays, most FAQs are so robust as to be interesting to just about anyone. For example, even if you do not like to argue about religion, you will probably find it interesting to read the FAQ about atheism (which is actually a set of five different FAQs). Or, even if you end up without a date for the sixth week in a row, you will find that the sex FAQs will well repay your inspection.

All of which brings us back to our original questions.

(You do remember the original questions don't you? High heels in bed; making an incendiary device; and lineups at Disneyland. Right. Let's push on then.)

All of these questions, and many, many more are answered in FAQs that are readily available, whenever you want. Here is how it works.

Each FAQ is associated with one or more Usenet discussion groups (or, less frequently, a mailing list). At regular intervals — usually once a month — the FAQ is posted to the group for anyone to read. Each FAQ is maintained by someone who is knowledgeable about the subject, usually a fanatic who incorporates the contributions of many other fanatics. FAQs tend to develop over time and get ever larger and, by now, many newsgroups have well-developed lists of questions and answers.

Aside from being posted to the discussion group of origin, FAQs are also sent to other groups whose chief purpose is to act as repository for such articles. The granddaddy of such groups is **news.answers**. If you check out this group, you will see all kinds of FAQs (often referred to euphemistically as "periodic postings"). There is even one such posting that is nothing but a list of all the FAQs.

There are also more specialized groups for the posting of all the FAQs within a particular hierarchy. (Usenet discussion groups are organized into "hierarchies" of related groups.) The names of these specialized groups are:

alt.answers
comp.answers
misc.answers
rec.answers
sci.answers
soc.answers
talk.answers

These names make sense if you understand the Usenet naming conventions. For example, a FAQ from a computer discussion group will be posted, not only to the group and to **news.answers**, but to **comp.answers** as well.

Thus, if you follow a discussion group that has a FAQ, sooner or later you will encounter that FAQ. And, if you can't wait, you can always check out **news.answers** or another such group. Moreover, if you are interested in FAQs in general (or have a few spare moments) you can read one of these FAQ-only groups and look for interesting articles.

Still, what do you do at those times when you really, really need a FAQ and it doesn't happen to be available? (As you may know, Usenet articles do not last forever; they "expire" and disappear. On busy systems, this can happen after a few days. It all depends on how the system manager has set up the Usenet facility.)

As a public service, Jonathan Kamens has set up a computer named **rtfm.mit.edu** to act as a Usenet archive. You can access this computer via anonymous ftp and download a copy of any FAQ, whenever you want. There are also any number of gophers and web pages that point to this same archive.

So, having discussed the theory of how it all works, let's take a look at some what you can find. Let's start by answering the questions we posed at the beginning of the article.

WARNING: Some of these answers have to do with sex and other cool stuff and are definitely not for family viewing. Thus, when you leave your copy of this magazine in the bathroom for people to read, do not leave it open to this page. We suggest you leave the magazine open to the letters-to-the-editor column which has a nice rendering of Jack Rickard, so all your friends and relations can see

what he looks like. And, if you are reading this article out loud to your family over the dinner table, you should probably skip right to the end where we talk about Disneyland.

Okay. So how DO you convince someone to wear high heels to bed? Here is an excerpt from the **alt.sex.fetish.fashion** FAQ. (For the entire answer, and a great deal more interesting material, see the FAQ itself.) This answer, by the way, was written by a woman.

Question: *How do I get my girlfriend to wear high heels more often, particularly in the bedroom?*

Answer: *The first good thing to try is to ask her, but not when you're already in bed. Try some evening after dinner, "I really think you have beautiful legs and feet. I would love it if you would wear heels to bed some time." It's always easier if the other person feels that they are giving you a gift rather than being pressured into doing something that might make them uncomfortable....*

To get her into bed with the shoes on, you might just try carrying her to the bed while she is dressed, and removing everything but the shoes...

Many women have been raised to see this kind of behavior as "kinky"... Assure her that whatever makes two people happy is just fine...

Okay, we know what you are thinking. So, what happens if I download and read this FAQ, and I convince my girlfriend to start doing strange new things? Would that be bad? Naw, don't worry about it. As Marilyn Quayle — the wife of Dan Quayle — once remarked: "Women do not want to be liberated from their essential natures as women". (And it's hard to argue with someone who has the ex-Vice President of the United States keeping house for her as a full-time job.)

Having got that out of the way, let's proceed to our next question. How can you use thermite to make your own incendiary device? (This might come in handy if, no matter what you do, your girlfriend will not wear high heels to bed, or if your husband absolutely refuses to keep house for you.) The following answer is taken from the **rec.pyrotechnics** FAQ.

DISCLAIMER: We provide the following information only for the hell of it. If you actually try to blow up yourself or your loved ones, don't blame us and don't

blame the magazine. Only a fool would actually use thermite to make his own incendiary device, so don't do it! (Notice that we say "his own", because men seem to be more inclined than women to want to blow things up.)

How to THINK ABOUT creating a thermite reaction:

The thermite reaction is a redox reaction that produces a lot of heat and light. In its usual configuration, temperatures can exceed 3000 degrees C, and molten iron is produced. It is therefore mainly used for welding, and by the Army in incendiary grenades...

There are many possible configurations — basically it is the reaction between a reactive metal and the oxide of a less reactive metal. The most common is as follows:

Aluminium powder, (coarse)
1 volume part or 3 weight parts
Iron (III) Oxide
1 volume part or 1 weight part

The powders are mixed together and ignited with a suitable fuse...

Safety aspects: Make sure you no longer need whatever you are igniting the thermite on — the reaction will melt and/or ignite just about anything. If you ignite the thermite on the ground, make sure the ground is DRY and free of flammable material. If the ground is wet a burst of steam may occur, scattering 3000 degree metal everywhere...

And, just in case some yo-yo is about to go buy some aluminum powder and iron oxide, we should tell you that we have left out some of the instructions so, before you proceed, read the entire discussion in the actual FAQ. (That way, if you blow up your house, it's not our fault.)

So much for sex and violence, we are now at the family part of this article: How to avoid the lineups at Disneyland. The following is taken from FAQs that are posted to **rec.arts.disney** and **rec.parks.theme**.

Question: How do I beat the crowds [at Disneyland]?

Answer: One of the best strategies is to arrive early, before the park opens. An hour after opening is too late; by then, the lines have built up to a full frenzy.

SELECTED NEWSGROUPS

USENET GROUP

alt.angst
alt.atheism
alt.bizarre
alt.buddha.short.fat.guy
alt.privacy
alt.sex
alt.sex.bondage
alt.sex.fetish.fashion
alt.sex.wizards
alt.suicide.holiday
alt.tasteless
misc.consumers (credit)

rec.arts.disney
rec.pyrotechnics

TOPIC

Sadness to the max
Atheism and how to think clearly
Strange... yes, very strange...
Buddhism with a sense of humor
Lots of great FAQs about privacy
All about sex (for real!)
Bondage and related topics
Sex and fun things to wear
Explicit, advanced sexual topics
Ways to kill yourself (for real!)
All types of things in bad taste
What the suits don't want you to know
Disney esoterica
How to make things that explode

Another strategy, generally for those without kids, is to take on the more popular rides late in the evening (after 9 pm, through midnight, if you're there at the time of year when the park is open late). Also, the lines do shorten a little during major shows and during dinner time...

Space Mountain is long most of the day and into the night, so first thing early morning is usually your best bet. Ditto Rocket Jets. Star Tours will shorten significantly in the late evening (when the line is completely inside, you're in good shape)...

Crossing the parade route is possible but time consuming. Plan which side of the park you want to be on during the parade and get there early. If you must cross, consider using the Disneyland Railroad or the Skyway. Parade crossing zones north of the Matterhorn are usually less congested than the one at the Hub. Main Street is tough (though not impossible) to negotiate during popular parades...

Once you learn how to find and read FAQs, there is a LOT of interesting material waiting for you. To get you started, here are a few suggestions about which FAQs to read (our personal favorites).

The prize for the most disappointing FAQ is a tie between **alt.magic** and **alt.religion.scientology**. The magic

FAQ is a real letdown: it doesn't tell you how any tricks work. The Scientology FAQs (there are a lot of them) are just the typical propaganda you would expect from Scientologists; they don't explain any of the really weird stuff that you don't find out about until you have paid a lot of money. However, there is a so-called "non-scientologist" FAQ in the same place, written by an intelligent skeptic that does give some real answers about Scientology.



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RESOURCES

All FAQs start life by being posted to a Usenet discussion group (or a mailing list); some FAQs are posted to more than one group. In addition, virtually all FAQs are posted to the **news.answers** group as well as to one of the other **answer** groups. For example, a computer-oriented FAQ will be posted to **comp.answers**.

Aside from Usenet, you can access FAQs by anonymous ftp. The original Usenet archive is on a computer named **rtfm.mit.edu** that is maintained by Jonathan Kamens. You can ftp to this machine and download any FAQ that you want, as well as a number of other interesting articles.

The FAQs are kept in the directory

/pub/usenet

under the name of the appropriate newsgroup. Many FAQs are large enough to consist of multiple parts, all of which are kept in a sub-directory. For example, the FAQ about bicycles consists of five parts which can be found in the directory:

/pub/usenet/rec.bicycles.misc

To make it easy to find what you want, the FAQs are also collected into a directory named:

/pub/usenet/news.answers

If you don't know the exact name of the discussion group, it is a lot easier to just change to the **news.answers** directory and look for what you want. For example, if you change to this directory and enter the command:

ls bicycle

you will see:

bicycles-faq/part1
bicycles-faq/part2
bicycles-faq/part3
bicycles-faq/part4
bicycles-faq/part5

In other words, the five parts of the bicycle FAQ can be found in a directory named:

/pub/usenet/news.answers/bicycles-faq

Note: The **rtfm** system has been set up so that the name **usenet** is linked to the name **usenet-by-group**. In other words, the following two directory names are equivalent:

/pub/usenet/news.answers
/pub/usenet-by-group/news.answers

Thus, if you use the **cd** command to change to **/pub/usenet** and then use the **pwd** to check the directory name, you will see:

"pub/usenet-by-group" is current directory

Don't be confused. It's just that this directory has more than one name.

Hint for Unix users: If you ftp a lot to the same computer, you can place special commands in a file named **.netrc** in your home directory. These commands will be executed automatically whenever you connect to the specified computer. For example, here are some commands that you can use to help automate the process of ftp'ing to **rtfm.mit.edu**. (In the third line, replace the address with your own personal email address.)

machine rtfm.mit.edu
login anonymous
password harley@dummy.com
macdef init
hash
cd /pub/usenet/news.answers

This example specifies instructions for one specific computer. You can have as many sets of instructions as you want, one for each computer that you use regularly. We won't go into the details here of how the **.netrc** file works. If you don't understand it, read the **netrc** entry in the online manual. (Use the command **man netrc**). However, we will remind you that you should have a blank line at the end of each set of instructions. If you only have one set (as in the above example), place a single blank line at the end.

Aside from the venerable Usenet archive at **rtfm.mit.edu**, there are various other places from which you can download FAQs via anonymous ftp. Here are three of them:

address: **walton.maths.tcd.ie**
path: **/news/news.answers**

address: **ugle.unit.no**
path: **/faq**

address: **plaza.aarnet.edu.au**
path: **/usenet/FAQs**

The first computer is in Ireland, the second is in Norway, and the third is in Australia.

If you don't feel like dealing with the intricacies of anonymous ftp, you can use a gopher to access a particular FAQ. You can find many such entries by using **veronica** to search for **FAQ**. Alternatively, you can use a gopher at Purdue University which is set up

particularly well for this purpose. Use the command:

gopher arthur.cs.purdue.edu

Once you are connected, select the following (in this order):

Non-Purdue Information
FTP Servers Outside Purdue
Usenet FAQ Archives
pub
usenet

Hint: Instead of jumping right to the Purdue gopher using the above command, start your gopher client in the regular manner (using either **gopher** or **gopher -b**) and navigate to the second last directory (**pub**). (Start by connecting to the gopher server for the Purdue University Computer Sciences Department in West Lafayette, Indiana.) When you get there, point to the **usenet** item and save it to your personal bookmark list. You now have a quick pointer to the list of FAQs that you can use whenever you want by starting your gopher with the command **gopher -b**. (For instructions on how all of this works, see Harley's book "The Internet Complete Reference".)

Here are two more gophers you can use. First, the Physics Department at the University of Toronto:

gopher gopher.physics.utoronto.ca

From the main menu, select:

USENET News Frequently Asked Questions (FAQ)

You will now see an exquisitely-organized set of FAQ items.

Second, at Welch Medical Library in Johns Hopkins University in Baltimore, Maryland:

gopher merlot.welch.jhu.edu

Select the following:

Usenet News and FAQs
All FAQs Searches and Archives
FAQs - Archives

If you like either of these setups, do as we suggested above. Start your gopher client in the regular manner, navigate to the particular gopher server and to the specific selection, and then save that selection to your personal bookmark list.

Finally, you can access the FAQs by using your favorite web browser. There are a number of links to the FAQ archives via the web. If you don't have one on your local system, you can try:

INTERNET UUCP Host List

BBN Technology Services

NEARnet
10 Moulton Street
Cambridge, MA 02138
Voice# (617)873-8730
Fax# (617)873-5620
(internet) nearnet-join@nic.near.net

\$2,890 year
\$1,000 registration fee

CICNet

2901 Hubbard Street
Ann Arbor, MI 48109
Voice# (313)998-6103
Fax# (313)998-6105
(internet) info@cic.net

\$35 month
\$2.50 hour prime time
\$2 hour non prime time
\$175 registration

CL2 global corp.

3390 Spottswood Ave.
Memphis, TN 38111
Voice: (901)452-3388
Fax: (901)757-4050
Data: (901)327-8718
e-mail: internet.info@cl2globl.net

\$30 per year plus
\$0.10 per message
FTP/Telnet \$25.00 month
\$1.50 per hour

Clark Internet Services

10600 Route 108
Ellicott City, MD 21042
Voice# (800)735-2258
Then Give the following
(410)730-9764)
Fax# (410)730-9765
Data# (410)730-9786
(internet) info@clark.net

\$30 month
\$264 annual
\$25 registration

CNS Internet Express

1155 Kelly Johnson Blvd.
Suite 400
Colorado Springs, CO 80920
Voice# (719)592-1240
(800)748-1200
Fax# (719)592-1201
(internet) info@cscns.com

\$10 monthly minimum
\$2.75 hour
\$8.00 hour 800 service
\$35.00 registration

Colorado Supernet

Colorado School of Mines
1500 Illinois Street
Golden, CO 80401
Voice # (303)273-3471
Fax# (303)273-3475
(Internet) info@csn.org

\$3 hour
\$40 registration
\$15 month minumum

CyberGate, Inc.

662 South Military Trail
Deerfield Beach, FL 33442
Voice# (305)428-4283
Fax# (305)428-7977
(Internet) info@gate.net

\$20 month includes 10 hrs
\$1 hour above 10 hrs
\$50 setup fee

Doyle Monroe Consultants

267 Cox Street
Hudson, MA 01749
Voice# (508)568-1618
Fax# (508)562-1133
(internet) info@dmc.com

Free Thirty day trial
period. Variety of plans
starting as low as \$5
a month, wil never
exceed \$150 a month

Global Connect

497 Queens Creek Rd
Williamsburg, VA 23185
Voice#: (804)229-4484
Fax#: (804)229-6557

\$30 month
No setup, no hourly

Holonet

46 Shattuck Square
Suite 11
Berkeley, CA 94704
Voice# (510)704-0160
fax# (510)704-8019
(internet) info@holonet.net

\$6 month
\$2-4 hour
\$50 registration

IDS World Network

3 Franklin Rd
East Greenwich, RI 02818
Voice# (401)885-6855
Fax# N/A
(internet) info@ids.com

\$15 month
\$80 6 months
\$150 year

IMS Intercom

6418 Symposium
Clinton, MD 20735
Voice# (301)856-2706
Fax#: (301)856-5974
BBS#: (301)856-0817
(internet) led@imssys.com

\$20 month
\$30 Connect fee

InfNet

Infinite Systems
PO Box 02138
Columbus, OH 43202
Voice# (614)268-9941
BBS# (614)268-3639
(internet) info@infnet.com

\$15-45 month
\$15 month flat rate

INTAC Access Corporation

256 Braod Ave.
Palisades Park, NJ 07650
Voice: (201)944-1417
Fax: (201)944-1434
Data: (201)944-3990
finger info@intac.com

InterAccess

9400 W. Foster Ave
Suite 111
Chicago, IL 60656
Voice# (708) 671-0111
Fax# (708) 671-0113
(internet) info@interaccess.com

\$5 month
\$2.20 hour
\$50 registration

ISLAND NET

Victoria, BS
Voice# (604)479-7861
BBS# (604)477-5163
(internet) mark@amtsgi.bc.ca

\$2.00 hour
\$75.00 setup

Maestro Technologies

29 John St
New York City, NY 10038
Voice# (212)240-9600
BBS# (212)240-9700
(internet) staff@maestro.com

\$100 month
\$125 setup

MCSNet

3217 N. Sheffield
Chicago, IL 60657
Voice# (312)248-UNIX
Fax# (312)248-8649
BBS# (312)248-0900
(internet) info@mcs.com

\$2.00 hour first 5 hours
\$1.00 thereafter in a
calendar month
\$15.00 month minimum
charge. \$10.00/setup

Merit/MichNet

2901 Hubbard Pod G
Ann Arbor, MI 48105
Voice# (313)764-9430
Fax# (313)747-3185
(internet) info@merit.edu

\$35 month
\$40 registration

MIDnet

501 N Tenth Rm 124
Lincoln, NB 68588
Voice# (402)472-8971
Fax# (402)472-8486
(internet) cfarnham@unl.edu

\$60 month
\$150 registration

INTERNET UUCP Host List

MRNet
511 11th Ave South
Box 212
Minneapolis, MN 55415
Voice# (612)342-2570
Fax# (612)344-1716
(internet) dfazio@mr.net

\$55 month
\$150 registration

Neosoft, Inc
3408 Mangum
Houston, TX 77092
Voice# (713)684-5969
Fax# (713)684-5922
(internet) info@neosoft.com

\$54.95 per month

NETCOM
4000 Moorpark Avenue
Suite 209
San Jose, CA 95117
Voice# (408)554-8649
Fax# (408)241-9145
(internet) info@netcom.com

\$25 month low vol e-mail
\$45 month USENET& mail
\$60 month Telnet/FTP
\$50 setup fee

PANIX
Voice# (212)787-6160
(internet) info@panix.com

\$2 hour
\$10 month for a user
account

RAIN
Box 2683
Santa Barbara, CA 93120
Voice# (805)899-8610
fax# (805)568-2299
Data# (805)899-8600
(internet) rain@rain.org

\$50 month
\$200 registration

The Dallas Infomart
1950 Stemmens Freeway
Suite 5001
Dallas, TX 75207
Voice# (214)746-4710
Fax# (214)746-4856
(internet) info@onramp.net

\$79 month
\$75 Registration

The Well
27 Gate 5 Road
Sausalito, CA 94965
Voice# (415)332-4335
Fax# (415)332-1669
(internet) info@well.sf.ca.us

\$35 month
\$1 hour
\$50 registration

UUNET Technologies
3110 fairview park drive
Falls Church, VA 22042
Voice# (800)488-6384
fax# (703)204-8001
(internet) info@uunet.uu.net

\$36 month
\$2.60-5.60 hour

XNet
PO Box 1511
Lisle, IL 60532
Voice# (708)983-6064
BBS# (708)983-6435
(internet) info@xnet.com

\$1 hour
\$5 month minimum

ZONE 1 Network Exchange
Robert Forsythe
5800 Arlington Ave
Riverdale, NY 10471
Voice# (718) 549-8078
Fax# (718) 884-7998
(internet) info@zone.net

\$5 hour

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- Internet Relay Chat (IRC)
- USENET conferences
- Archie & Gopher
- FTP
- Telnet

HoloNet is a local call in over 850 cities nationwide.
Modem to 1-800-NET-HOLO (8N1) to find the access number
closest to you and HoloNet rates.

HoloNet membership is \$6.00 a month plus hourly connect
charges, which can be as low as \$2.00 an hour!
1200-14400 bps modems supported.

Try HoloNet for yourself and find out what the Internet is all
about. For a **free demo** modem to **510-704-1058 (8N1)**

For Your BBS:

HoloNet Provides Internet E-mail, USENET Conferences And A Custom Domain Name

For a one-time setup fee of \$75.00, you can add UUCP and
domain name service (DNS) to your HoloNet account.

UUCP service gives your BBS users access to Internet e-
mail and USENET conferences. UUCP service can be set-
up in less than an hour!

Domain name service (DNS) gives your board a custom
Internet address similar to "something.com". Domain
names take up to 2 weeks to be registered.

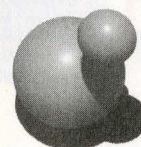
An individual HoloNet account is required before adding
UUCP and DNS service. All regular HoloNet rates apply.

For more information on HoloNet call

510-704-0160 (voice)

or

send e-mail to **info@holonet.net**



HoloNetSM

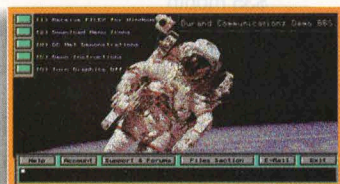
From Information Access Technologies, Inc.

FirstClass, Major BBS, PC Board, Remote Access, RoboBoard, Searchlight, TBBS, Wildcat! and more!

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DC NET v2.6

Online Photograph Databases



NEW
Fractal
Compression
Supported

DEMO BBS: (805) 961-8710 (8N1)

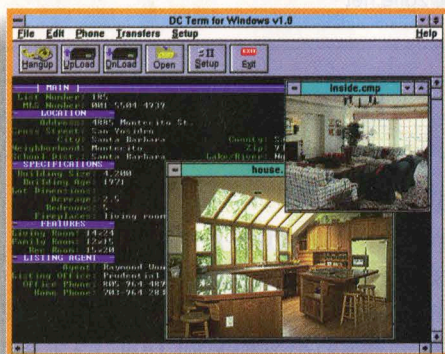
Create powerful online business or entertainment databases accessible through DOS or Windows™ with DC Net v2.6 for The Major BBS®.

With DC Net, everything from image compression to turn-key applications are provided in one easy-to-use database tool kit. Now you can create powerful multi-user database applications or modify one of our pre-existing applications to meet your specific needs. Using DC Compress, your users will be viewing images in less than 15 seconds (at 9600 baud).

NEW

DC Term v1.0 for Windows™

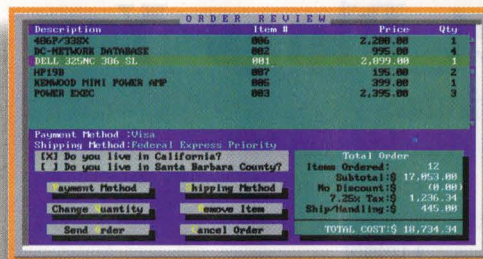
DCN announces its new DC Term v1.0 for Windows with enhanced video card support and built-in image viewing capabilities in one easy-to-use Windows terminal program.



• DC Term v1.0 running Residential MLS

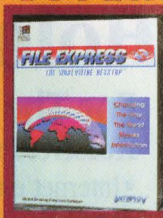
Order Entry v1.1 for DC Net

The DC Order Entry add-on to the DC Net database allows you to create online product catalogs with ordering and PO generation. Order Entry is 100% configurable to meet your specific needs, including payment and shipping methods.



• Order Entry v1.1

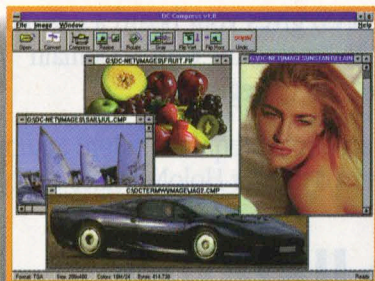
FREE OFFER!



Special Limited Time

Receive FILEX for Windows (reg. \$149) with any DCN purchase of \$1,500.

WINDOWS COMPRESSIONS



• DC Compression program for Windows™ with New Fractal Compression Support

TURN-KEY APPLICATIONS



• AutoSeller as seen through DC Term for DOS

DCN provides a full suite of turn-key database applications:

- CareerPRO Resumes
- AutoSeller
- Entertainment & Events
- RealVision MLS
- Video Product Catalog
- MatchMaker
- Contact Phonebook
- Classified Ads

Images transfer in 10-15 seconds.

DURAND COMMUNICATIONS NETWORK

147 Castilian Drive, Santa Barbara, CA 93117
Phone: (805) 961.8700 / Fax: (805) 961.8701 / FILEX: (805) 961.8702 / DEMO BBS: (805) 961.8710 (8N1)

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DC GENESYS v1.0

Online Multi-Media Databases

NEW

Supporting Every Bulletin Board Platform

Durand Communications Network is proud to announce DC Genesys, an all new online photograph database utility capable of operating through BBS doorways.

Using the DC Genesys Database tool kit, users can develop fully relational online database applications for entertainment or business with sound support for Windows terminals. This powerful new addition to the DCN family of database communications products can be accessed through a royalty-free terminal program for Windows™ or DOS with built-in image viewing capabilities and RIPscrip compatibility.

FEATURES

FLEXIBLE USER INTERFACE

- Complete flexibility in design of data-entry, searching, browsing and detailed viewing.
- ANSI and RIPscrip graphics protocol support for all database functions.
- Complete entry screen validation via pick lists.
- Online and Offline database updating.
- Browse to detailed view jumping.

PHOTOGRAPHS IN SECONDS

- Support for the following image formats: JPG, CMP, PCX, BMP, FIF, TIF, TGA and GIF.
- Online and Offline image viewing capabilities.

RELIABLE MULTI-USER CAPABILITIES

- Support for multiple users running separate copies of DC Genesys on the same computer (through DesqView) or on separate computers on a LAN network.
- Seamless sharing of data with concurrent dBase/FoxPro applications on the same LAN.

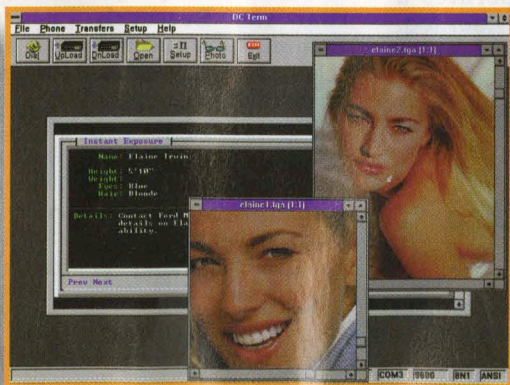
POWERFUL SEARCH ENGINE

- Query-By-Example via custom forms as well as an "expert mode" command line.
- Customized query optimization and fine-tuning.

NEW
Fractal
Compression
Supported

COMPLETE COMPATIBILITY

DC Genesys is 100% dBase III+, dBase IV and FoxPro2 compatible. It is also completely relational with support for seamless relational capabilities between fields in different tables.



• DC Genesys as seen through DC Term for Windows

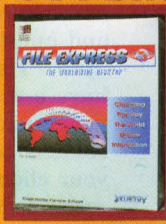
Images transfer in 10-15 seconds.

ALL WINDOWS INTERFACE



• Online RealEstate Database

FREE
OFFER!



Special Limited Time

Receive FILEX for Windows (reg. \$149) with any DCN purchase of \$1,500.

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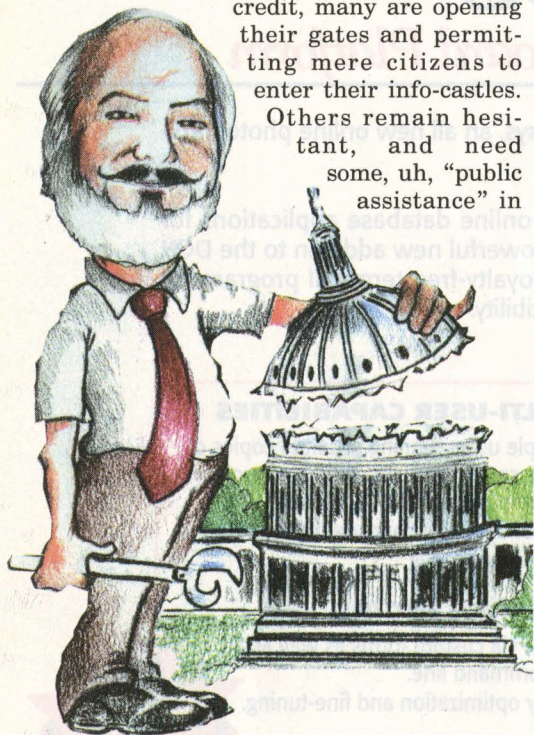
ACCESS TO GOVERNMENT

DROPPING GOVERNMENT DRAWBRIDGES

by Jim Warren

Public agencies are rapidly discovering the 20th-Century "printing press" — online public access. To their credit, many are opening their gates and permitting mere citizens to enter their info-castles.

Others remain hesitant, and need some, uh, "public assistance" in



the form of virulent advocacy through our elected officials.

CENSUS ANYONE?

Eric G. Grant (egrant@census.gov) reports that the United States Bureau of the Census has begun testing an Internet information-server and invite exploration, with comments and questions to gatekeeper@census.gov. He says they are planning to have a majordomo mail-server in the near future, however you can already connect to their beta-site by pointing your client program to their universal resource locators (URL's):

ftp: <ftp://ftp.census.gov/pub>
gopher: <gopher://gopher.census.gov>
http: <http://www.census.gov/> (for using mosaic, lynx, WWW, etc.).

NET-AIDED CONGRESSIONAL REFORM

Gary Ruskin (gary@essential.org) is the Director of Ralph Nader's Congressional Accountability Project (what a novel idea). He has created an online information list for grassroots activists and citizens who want updates and background briefings on congressional reform issues from "inside Washington." (Ya gotta know what's really going on if you're gonna help make things better.)

He created the list in response to citizens and local activists around the nation who realized that, if they were to help move forward real political reform, they needed a well-informed source of *timely* information about legislative developments and Washington issues and players.

The cong-reform list provides timely information plus explicit suggestions about what activists and other citizens can do to help create effective congressional reforms.

To subscribe, send Internet email to listserver@essential.org with one-line content saying:

SUBSCRIBE CONG-REFORM your first name
your last name.

MINNESOTA LEGISLATIVE GOPHER

Mike Ellsworth (mellswor@well.com) reports that the Minnesota State Legislature now operates a gopher server: <gopher://gopher.revisor.leg.state.mn.us>. But, has that state adopted a statutory mandate assuring continuing public access in this modern form?

WASHINGTON STATE INFO CONTENT POLICIES

The state of Washington has created a task-force to develop comprehensive information-content policies and a plan for making state and local public records available to the public, electronically. The group is co-chaired by the state Director of Telecommunications/Computer and the State Librarian, Nancy Zussy (nzussy@wln.com).

EXAMPLE OF A CITY ONLINE

Sunnyvale, California, City Council Member Landon Curt Noll (chongo@ncd.com) — who, in the real world, works for Network Computing Devices — reports that most of the departments in his city are now on the Internet via the city's own hose, ci.sunnyvale.ca.us. They illustrate the range of city or town departments that *should* typically offer public access:

- classreg - Recreation Registrations
- council - City Council
- cityatty - City Attorney's Office
- ctymgr - Office of the City Manager
- finance - Finance department
- infotech - Information Technology
- library - Public Library
- mayor - Mayor's Office
- nova - Employment development
- parkresv - Parks and Recreation facilities
- parksadm - Parks and Rec. administration
- patents - Patent Library
- planning - Community Development
- pubsfty - Public Safety (Police and Fire)
- pubworks - Public Works
- purchase - Purchasing
- utilbill - Utility Billing

Note: For many years, the Sunnyvale Patent Library was the only such library outside of Washington DC, and may still be the only one. Patent information forms public records that *need* to be available via the nets.

NII INFORMATION

Russell Rothstein (diig@farnsworth.mit.edu or (617)253-6828) reports that the Research Program on Communications Policy at MIT has released the *Digital Information Infrastructure Guide* (DIIG). It includes a collection of NII legislation (e.g. HR3636), profiles 37 NII-related projects and institutions, provides information on 30 other related projects and gives links to NII information on 25 other gopher servers, including ACE, CPSR, CCN, EFF, HPCC, IITF, ISOC, NSF, NIST, NASA and InterNIC. It is available by several online access methods:

http: <http://farnsworth.mit.edu/>
gopher: [farnsworth.mit.edu](gopher://farnsworth.mit.edu) (Port 70)

MORE HOUSE MEMBERS ONLINE

More Members of Congress — at least in the less-entrenched House of Representatives — are now accepting e-mail from their district constituents. Additions since last month's list include:

Hon. Peter Deutsch
20th Congressional Dist., Florida
Rm. 425 Cannon House Office Bldg.
Washington, DC 20515
pdeutsch@hr.house.gov

Hon. Anna Eshoo
14th Congressional Dist., California
[The northern chunk of Silicon Valley.]
Rm. 1505 Longworth House Office Bldg.
Washington, DC 20515
annagram@hr.house.gov

Hon. Sam Johnson
3rd Congressional Dist., Texas
Rm. 1030 Longworth House Office Bldg.
Washington, DC 20515
samt03@hr.house.gov

Hon. Mike Kreidler
9th Congressional Dist., Washington
Rm. 1535 Longworth House Office Bldg.
Washington, DC 20515
kreidler@hr.house.gov

Hon. Earl Pomeroy
North Dakota, At Large
Rm. 318 Cannon House Office Bldg.
Washington, DC 20515
epomeroy@hr.house.gov

The instructions emphasize that, "The primary goal of this program is to allow Members to better serve their CONSTITUENTS," and states that they want to verify that each "user is a resident of [their] particular congressional district."

If you are not a resident of their district but are impacted by their decisions — as is almost everyone in the global village — they may refuse to accept your cheaper, faster, more-convenient, non-landfill e-mail. But they *will* permit and accept your legal bribes, uh, "campaign contributions."

E-mail a request to comments@hr.house.gov for complete instructions and a list more up-to-date than our press deadline allows.

10¢ /Day To Add Nation-Wide Classified Ads For Your Subscribers.

Now BBS's have something NEW and HOT to offer to their subscribers. Traders' Connection announces hundreds of classified ads of computer equipment from around the country, updated weekly, for BBS's to offer to their subscribers. Any BBS can call Traders' Connection and for a small download charge of \$36 per year, show these classified ads to all their subscribers on their bulletin board.

As always we offer callers a FREE on-line tour through hundreds of thousands of classified ads and more right from their own computer. As a "GUEST," buying or selling, they can shop for fun or request a 'Global Search' to locate specific items from over 500,000 ads. All from their computer and all FREE with no long distance charges using any of our 624 local access numbers. Call the numbers below for more details.

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Voice Info &
local access #'s

TRADERS'
CONNECTION™

1-317-359-5199

On-line & Local # Info.
(14.4k 8N1)

Power Up The Classified World Network

FREEDOM-OF-INFORMATION QUESTIONS

Anton Lensen (alensen@MENVAX.RESTENA.LU) posted a table of the FOI policies of the nations in the European Union. Originally published in May, 1993, it appeared in, "Access to Official Information in the EC," by Anderen and Ryborg, in the Transnational Data and Communications Report. Lensen posted it online in EURO-LEX, the All EUROpean Legal Information EXchange list (EURO-LEX@vm.gmd.de). It gave responses to a number of questions, including:

- As a matter of principle, does everyone have the right to obtain information held by the public administrative authorities upon request?
- Does this apply also to non-personal computerized information?
- Do effective and appropriate means exist to ensure access to information?

- Is the FOI Council of Europe recommendation fulfilled — that, "access to information shall not be refused on the grounds that the requesting person has not a specific interest in the matter?"

- Is access to information provided on a basis of equality?

- If not, who has preferential access?

- Do limitations and restrictions on public access apply only when they "are necessary in a democratic society for the protection of legitimate public interests such as national security, public safety, public order, the economic well-being of the country, the prevention of crime or for preventing the disclosure of information received in confidence, and for the protection of privacy and other legitimate private interests?"

- As for the protection of privacy, do the limitations and restrictions give "due regard" to the specific interest of an individual in information held by

the public authorities which concerns him personally?

- How much time are the authorities allowed to respond to a request for information?
- In the case of a refusal, must public authorities give reasons according to law or practice?
- Is a refusal of information subject to review upon request?

Next question: What are the answers to these questions from *your* state and national public-information policies? Ask your elected representatives.

ONLINE ACTION ALERTS

I distribute about half-a-dozen or more notices and action-alerts per month, concerning specific cases of computer-aided government-access, primarily focusing on state and local issues, developments and legislation.

To receive these online "GovAccess" distributions, send an Internet e-mail request to jwarren@well.com. If yer willin', give a sentence or two about your related background and interests.

CIVIC NETWORKING CONFERENCES?

There have been a variety of local conferences on civic networking — providing computer-aided local community services — and an outstanding early-May conference on community networking at Apple (request a possible report on it from Steve Cisler, sac@apple.com).

If you know of other such events planned for the future, or of a national conference on civic/community networking, please provide details by e-mail or phone.

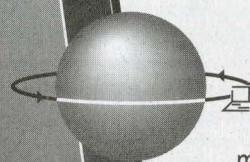
[Jim Warren, founder of InfoWorld, was the host of PBS' "Computer Chronicles," and Editor of Dr. Dobb's Journal and has chaired various computer organizations. He began working as a programmer in 1968, holds three graduate degrees, and has taught computing at Stanford and other universities.]

THE BUSINESS BBS

Custom Online Application Solutions

The Business BBS is a premiere online system service bureau specializing in applications for business, government, and associations.

Realize all the benefits of an expert online service, customized to meet your specific business needs and incorporating *leading edge* technology, without actually building or operating one. We build, operate and maintain them on our equipment, from our facility. The Business BBS alternative saves you time, money, and resources: It ensures a professionally designed and operated online service which is easy to use.



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	INDUSTRY: COMMUNICATIONS		
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	REQUIREMENT: EXPANSION CAPITAL		
P&L	BALANCE SHT	MORE INFO	FAX FILE
AVE ANN. SALES: \$10M		CONTACT INFO	
2 YRS PROFITS: \$1M, \$0.9M			

We'll custom design your applications - integrating state-of-the-art graphics, fax, user interface, and database technology. The Graphical User Interface and image capabilities integrate the latest RIPscrip technology. We offer 5 different database engines and the ability to display objects and images with database records.

Our tool kit includes the *only* multi-user fully *programmable*, online client/server relational database. Many off-line database programs can be run online, often with little or no reprogramming.

Combine our online expertise with your business and customer knowledge for cost efficient, easy to use, integrated applications.

Online demonstrations are available by appointment. Telephone today for more information.

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Fax (310) 477-9475

THE BUSINESS BBS

2531 Sawtelle Blvd., Suite 109
Los Angeles, CA 90064-3163

*Photographic images available April 1994

They couldn't top Synchronet.™

So we did.

Introducing Version 2.0

PCMS™

Synchronet v2.0 unveils PCMS, the Programmable Command and Menu Structure. At the heart of PCMS is *Baja™*, an easy to use basic-like programming language and compiler that allows flexible command shell programming without external programs or add-ons. Because compiled command shells are loaded dynamically upon user logon, multiple BBS structures can be available for your users to choose from; including emulations of other BBSs, complex graphical user interfaces, foreign language shells, and custom applications.

SMB™

Version 2.0 provides a level II implementation of the new SMB message base format for high speed, high volume, multi-network message storage and retrieval. SMB is highly extensible to support future needs including multimedia!

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Coming soon! Synchronet for OS/2, the 32-bit big brother of Synchronet for DOS. Finally, a powerful and feature rich 32-bit BBS will soon be within your grasp.

Free Demo

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(714) 529-9547 28.8Kbps V.FC

Synchronet for DOS v2.0

2 node	\$ 99.00
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8 node	\$ 299.00
16 node	\$ 399.00
250 node	\$ 499.00

Digital Dynamics®

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Compare 8 nodes on a single 486

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Node license*	\$299	\$799	\$440	\$508	\$895
Programmable	Yes	No	Extra	Extra	Extra
Multiple command shells	Yes	No	No	No	No
Intelligent DigiBoard	Yes	Yes	Yes	No	No
Int'l 4h device support	Yes	No	Yes	No	No
Standard serial ports	Up to 10	No	Up to 4	Up to 2	Up to 2
Caller ID security	Yes	No	Extra	Extra	No
Nested security logic	Yes	No	No	No	No
Multichannel chat	Yes	Extra	Yes	Yes	Yes
Private user chat	Yes	No	Extra	Yes	Yes
Offline reader support	Yes	Yes	Extra	Yes	Extra
QWK networking	Yes	Yes	Extra	No	Yes
FidoNet import/export	Yes	Yes	Yes	Yes	Yes
PostLink (RIME) support	Yes	Extra	Yes	Extra	No
Includes RIPscrip menus	Yes	Yes	No	Yes	No
Novell/DOS LAN support	Yes	Yes	Yes	Yes	No
Enhanced CD-ROM support	Yes	Yes	Yes	No	No
Incoming FAX support	Yes	No	No	No	No
Chat between doors	Yes	No	No	Yes	No
Bidirectional file transfers	Yes	Yes	Yes	No	No
DOS door support	11 types	2 types	2 types	No	No
FILE.ID.DIZ support	Yes	Extra	Yes	Yes	No
Offline NetMail	Yes	Yes	Extra	No	Yes
Offline/Remote file requests	Yes	No	No	No	No
Real-time configuration	Yes	No	Yes	No	No

Features and prices compiled from vendor supplied information 2/94, are subject to change without notification. Wildcat!IM, PCBoard/M, MajorBBS, TBBS, QWK, FidoNet, PostLink, RIME, RIPscrip, Novell, and DOS are trademarks or their respective companies. Third party utilities may be required for some message network technologies. * for 8 nodes Wildcat!IM requires a 250 node license, PCBoard/M requires a 10 node license, TBBS requires a 16 node license.

If you haven't checked out Synchronet yet, crank up your modem and download a demo. There isn't a faster, more feature rich BBS available anywhere from anyone. Synchronet combines the robust interactive nature of a multiuser BBS with the speed, power and flexibility of a multinode system.

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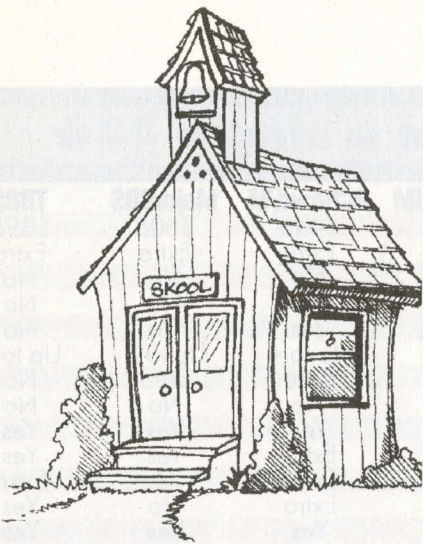


Synchronet BBS version 2

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EDUCATION LINK

by Bill Gram-Reefer



SOUTHERN-STYLE DATA EXCHANGE

The Southern Regional Education Board operates a Wildcat BBS called SREB Dat-Ex. On it, educators will find hundreds of files pertaining to education, statistics, reports and funding reports for the 15 States south of the Mason Dixon line down to Oklahoma and Texas. It seems educators use telecommunications for more than educating, and in this case, BBS technology is well used to serve educators in their administrative and planning capacity.

According to SREB's backgrounder, "The Southern Regional Education Board has been a major force in the progress of education reform in Southern states for nearly 50 years. SREB, an Atlanta-based organization is the nation's first interstate compact for education. It has been uniquely successful in helping education and legislative leaders work cooperatively to advance education and improve the social and economic life of the South. SREB assists these leaders in solving specific problems, planning and implementing educational reform for long-range changes—looking beyond the daily work schedule to set goals that move Southern states forward."

Among its many programs, the SREB sponsors educational technology initiatives aimed at "expanding the effective use of computers and other informa-

tion systems in public school and college classrooms. With technology as part of the teaching-learning equation, educators can individualize instruction, better teach problem-solving skills, and encourage creativity." The SREB also provides a minority Ph.D. program which supports a long-term, cooperative, regional venture to increase the available pool of minority faculty members—especially in the sciences and engineering—by giving special support to promising scholars as they enter and complete doctoral programs at universities in the SREB states.

In addition to legislative updates for each State and budgetary news from around the region, SREB Dat-Ex provides a wide ranging selection of files. Here is a sampling of the kinds of files available:

Population and Economic Data: population changes and projections, age distribution and race/ethnic background, school enrollments and graduates, wealth, and state/local government revenues and expenditures.

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Other major topics on the BBS include data tracking Higher Education Faculty and Administrators within the region including salary and fringe benefit information; Higher Education Budget Data, Health Programs, Historical Data, and Educational Goal Indicators collected for a biennial report including: K-12 enrollments, revenues, expenditures, salaries, certification requirements, graduation

standards, student achievement on SAT and ACT tests, state-level policies, and actions effecting regional and national goals.

SREB Dat-Ex offers these files (and more), plus e-mail and conferences, bulletins and legislative reports. Open all the time, contact SREB Dat-Ex, 592 Tenth Street NW, Atlanta, GA 30318; (404)875-9211 (voice); (404)881-0119 (BBS with settings N81).

[Bill Gram-Reefer, based in Concord, CA, is president of WORLDVIEW, specializing in connectivity and communications. Bill has been writing about Macintosh computers since 1984. E-mail bill at wk05156@worldlink.com]

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MACINTOSH NEWS

by Bill Gram-Reefer

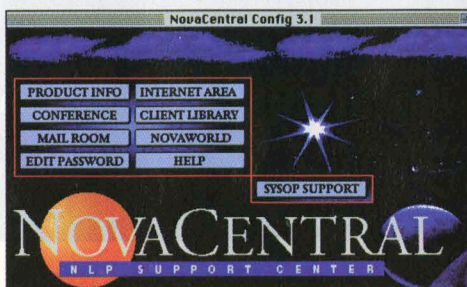


ACCESSING MAC HOSTS VIA INTERNET

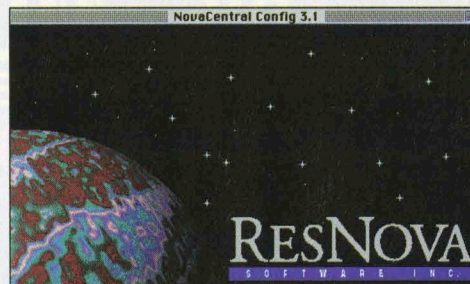
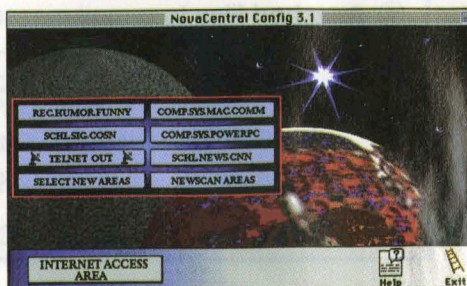
In the computer industry, there is always some fool touting the take-off and mass acceptance of some new technology, let's see, I remember the "year of desktop publishing," "year of the LAN," and the "year of the CD-ROM," to name just a few. So let me be the second or third to go on record as stating that it would be difficult, to ignore 1994 as the "year of the Internet," or, more precisely, the "year everyone tried to make their BBS product and service accessible from/to the Internet in anticipation of the actual 'year of the Internet.'" Realizing their chance to grab their places in history, the major Macintosh BBS vendors, ResNova (NovaLink), Spider Island (TeleFinder), and SoftArc (FirstClass) are all part of the rush to supply customers with a GUI interface accessible from the net. Some projects are further along than others, but provide workable solutions now and promise even better for next year. In mid April I took a look at each publisher's product and here's my report.

ResNova's April 1 release of its NovaLink Professional 3.1 (NLP) BBS product proved it wasn't joking about Internet access for its sysops and their subscribers. It's there and it works. NLP supports access via Internet using a SLIP connection. This is a full graph-

ical user interface (GUI) offering the same capabilities (chat, conferencing, and file transfers, access to externals) that a user would enjoy using a standard dial-up connection using a modem. And it's pretty simple to do. First you need a copy of NovaTerm 3.1 and the configuration file for Nova Central available from ResNova's BBS. Plus you need a SLIP or PPP account available from most Internet service providers. Third, you'll need a copy of MacTCP (version 2.0.4 is current as of this writing) and either InterSLIP or MacPPP which you'll need to use to make your SLIP or PPP connection, that being the first order of business.

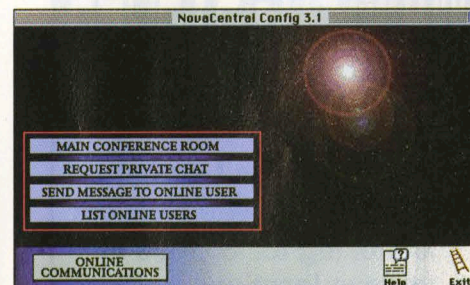


Once I made my SLIP connection by dialing my local access number in Walnut Creek, California, I launched NovaTerm 3.1 and chose the appropriate configuration file. In this case it was for Nova Central (it could be for any NovaLink BBS that supports net access). Then, under the "Connection Type" dialog within the configuration set up, I selected MacTCP (instead of modem or Comm Toolbox) and entered my User ID. Then, instead of typing in the phone number of the BBS, you enter its domain name **ResNova.com**. Click on connect and you're there. You even get the cool satellite graphics and pulsating humming noises that are standard with NovaTerm. Connected to Southern California on a local call, I passed through the regular logon process, and was greeted by an audio message, shown several cool graphics



of some alternate universe and found myself in the lobby of NovaCentral's Support BBS. I was able to download files, read and mail to conferences, and send e-mail. Better yet, I was able to Telnet out to another BBS, although this could have been to an FTP site, ARCHIE, or Library of Congress. But in this case, ironically, I chose to Telnet to spiderisland.com where I was promptly logged on to Spider Island's BBS. Once there I left a nasty e-mail message to Rusty Tucker, president of Spider Island, maker of TeleFinder (TF).

Yes, **spiderisland.com**; which you could log on to today even from a shell account, but you'd only get a TTY interface for now. Spider Island claims it plans to support GUI on just a shell connection, but for now you need a SLIP account to get the GUI connec-



tion. Using a MacTCP version of Spider Island's NetConnect in your extensions folder, it's pretty much the same deal as ResNova: make your SLIP connection, launch TeleFinder Pro (Shareware v.2.2.2) choose the service you want to connect with, change port from the Special menu, select NetConnect TCP instead of modem, and enter **@spiderisland.com** replacing the phone number. After an almost instantaneous connection, the logon proceeded normally and brought up the standard icons and folders. I was in the chat room in seconds talking with Andreas Fink, developer of InterFinder, as he had logged on via

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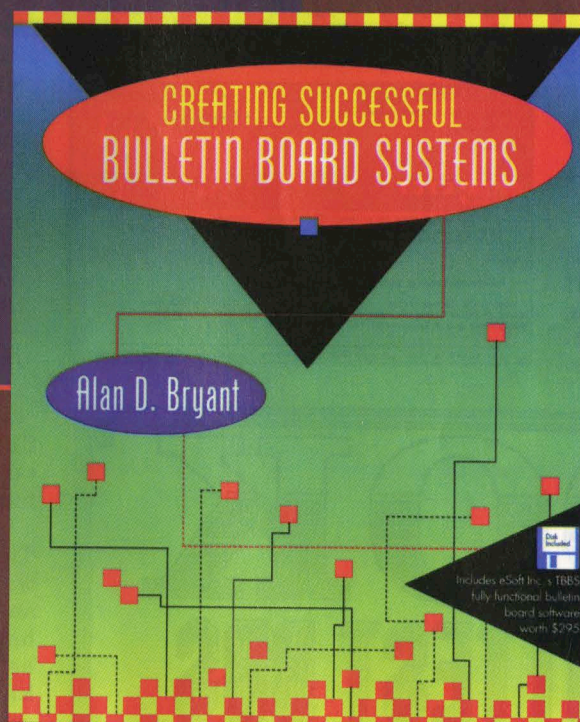
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Alan D. Bryant is Director of Marketing for eSoft, Inc., and is a contributor to **Boardwatch Magazine**. He is the owner of Bryant Software and is a software developer for BBS add-on utilities and entertainment products.

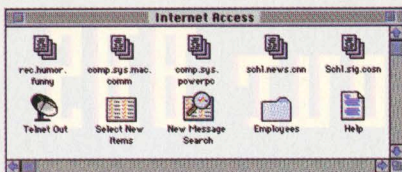
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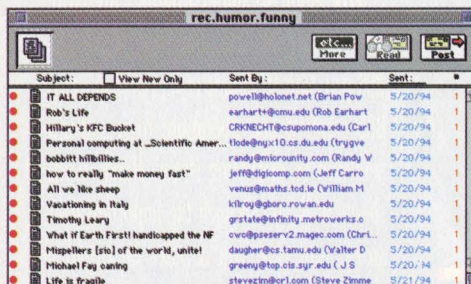


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the Internet from Switzerland. I downloaded a file to my location, getting about 1,800 cps throughput, which is

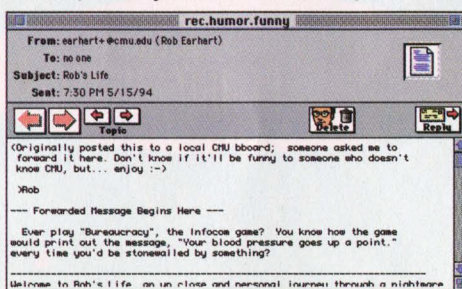


really a measure of how clean the connection between both SLIP sites was (my SLIP connection and Spider Island's SLIP connection) given we both were using 28.8 modems.

SoftArc's FirstClass is also a net-capable BBS, but at this writing it requires more fine tuning and fiddling during the configuration and connection process. In this case, using First-

Class (FC) client 2.5 I was able to Telnet to a FC BBS that had a stable IP address using VersaTerm Telnet Tool which is part of a package called Versatilities from Synergy Software. There's a little more involved in the set-up than for ResNova and Spider Island. First, you have to select the service, and then press setup to select the CTB connection method. Then you need to configure the Communication Toolbox by selecting the Telnet tool and configuring it. Here there are a lot more things to do besides enter the IP address and host port number (a good thing to know in advance). But if you follow the directions and click on Connect, that's what you get.

While ResNova's connection method is, at this writing, the most complete (i.e. seamless, transparent and easy to use), Maury Markowitz freely admits



that SoftArc's implementation is not as clean as it could be and that users and sysops can expect point and click Internet connectivity from SoftArc in the future. Also expect to see Spider Island making its connection method more transparent by incorporating the NetConnect extension into the overall structure of TeleFinder Pro so there'll be no separate piece that has to be installed. The new version of TeleFinder host that supports net access should be shipping in the July-August time frame.

As for speed, these connections will only be as viable as the SLIP connections that users and the services they are calling subscribe to. For instance, my "Telnet" session from Nova Central to Spider Island was very slow, like 240 bps. This had more to do (I'm guessing here but pretty sure...it just felt like a bad line) with the service provider used by ResNova (SurfNet), since throughputs during my direct connect to Spider Island via Netcom account to Netcom account provided 1,800 cps. It may have had something to do with the other processing being done by ResNova's host at that time as well.

As mentioned earlier, all of this net-surfing was done via local, non-toll calls. The only charge is the shell and SLIP account, since I've changed my outbound calls to flat-rate from measured service, thank you.

The same can be said for sysops, but with a catch. Sysops will need to find an Internet provider that will let them have access. By hook or crook, this can be done if you know whose door to knock on. For instance, there are companies that have a T-1 line that might be happy to "resell" to you a 14.4 or maybe 28.8 access for a monthly fee starting at around \$80 per month (just guessing) plus maybe a startup fee, and change to setup your domain name. There are some out there like the Little Garden and Information Access Technologies that will resell bandwidth to other BBSs. Alternatively, some companies that are not really in the "provider" business may just want to amortize their own expense for their in-house T-1 and let you in the back door, but don't expect a lot of hand-holding. It can get touchy when you go to the larger providers since they (like you) want to actually sell Internet access to subscribers and not piss their bandwidth away on a stinking little Mac BBS which might (gasp) actually give it away or perform

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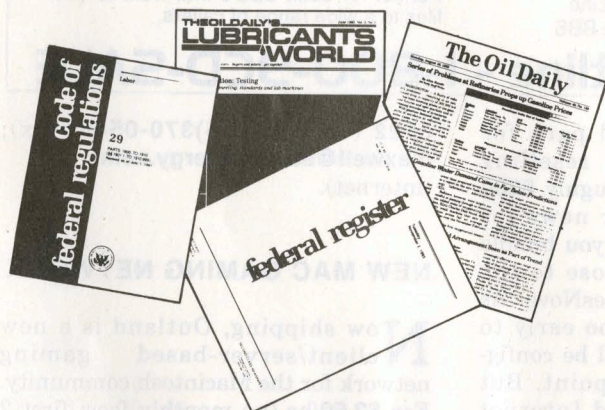
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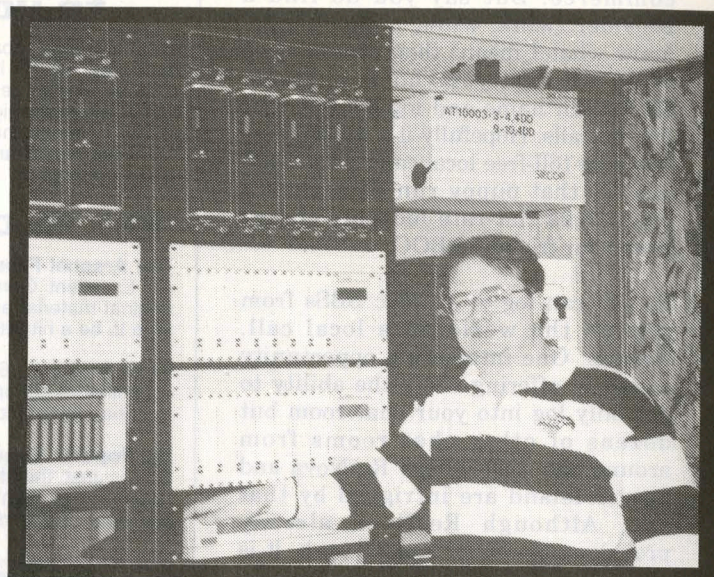
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some other unnatural act against the free-grinding wheels of market-based commerce. But say you do find a provider (wink, wink, nudge nudge, know what I mean) then all you need to do is to get your hookup, stable ID/domain name and log on and wait for the calls. Hopefully it's within your five mile toll-free local calling area and just let that puppy run all night for your \$8.95 flat-rate monthly charge from your friendly RBOC.

So you can log on to Mac BBSs from around the world on a local call. Hmmm. One interesting opportunity comes in offering users the ability to not only log into your chat room but dozens of other chat rooms from around the world. Both ResNova and Spider Island are intrigued by that one. Although ResNova already provides support for AppleSearch, it is not out of the realm of possibility that these Mac BBS platforms will also be able to support WWW via Mosaic and connections to WAIS servers nested within the host (no sense providing access to the net without providing access to the content, is there?).

And what's this portend for host-specific Mac or other networks? I expect there will be more good than bad come of this. First of all, if you're a FidoNet sysop spending hundreds of dollars or more for downloading Fido-based conferences, doesn't it figure that it would be just a little bit smarter to get and return your conference content for free using the net? The real problem comes in how distributed nets like this can take advantage of these new capabilities. For instance, when almost anyone can subscribe to comp.sys.mac.comm, what niche does a distributed Macintosh modem conference fill? Perhaps by offering some central nodes or listserv in addition to the pass-along architecture, nets can additionally "broadcast" content without having to upload to a satellite.

How much does it cost? Well for users, nothing, or not much. NovaTerm 3.1 is freely distributable. Same for FC Client and TF User, while TeleFinder Pro is shareware. Once again, the sysops pay. According to ResNova's president, Alex Hopmann, Internet News and E-mail could run as little as \$200 to \$500 in addition to the basic server package now retailing at around \$100. For the whole shooting match including mail, news, and Telnet, ftp, cross-WAN TCP-IRC, and the rest (ARCHIE, WAIS, MUDDs?) expect to fork over about \$1,000. This is prob-

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ably the same-sized ball park for Spider Island which is reselling InterFinder (e-mail) for roughly \$200 and another package for news for about the same price; so if you bundle it all up, it should be close to the numbers cited above for ResNova. As for SoftArc? It may be too early to guess how the software will be configured and at what price point. But remember, when you add Internet users, SoftArc will certainly consider them "additional network users" and charge accordingly.

ResNova Software, 5011 Argosy Drive #13, Huntington Beach, CA 92649; (714)379-9000 (voice); (714)379-9014 (fax); (714)379-9004 or resnova.com (Nova Central BBS).

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SoftArc Inc., 805 Middlefield Road, Suite 102, Scarborough, Ontario Canada M1V-2T9; (416)299-4723 (voice); (416)754-1856 (fax); (714)609-2250 (FirstClass BBS).

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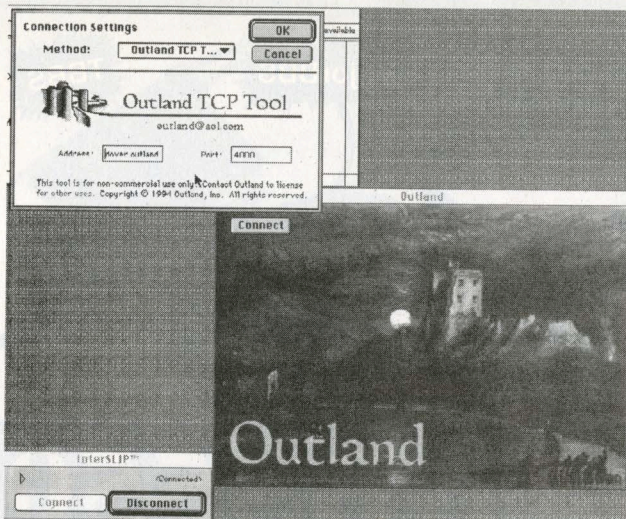
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[Bill Gram-Reefer, based in Concord, CA, is president of **WORLDVIEW**, specializing in connectivity and communications. Bill has been writing about Macintosh computers since 1984. email bill at reefer@netcom.com]

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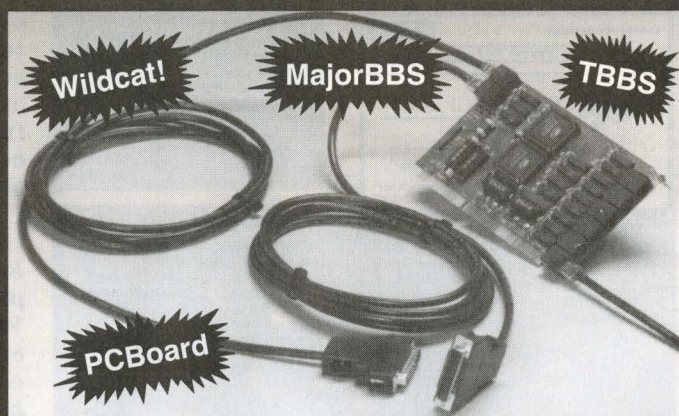
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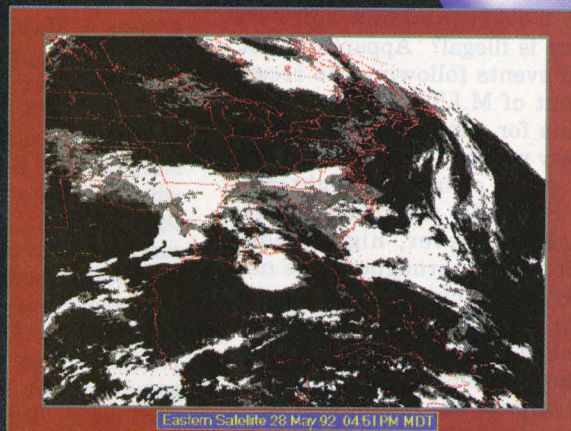
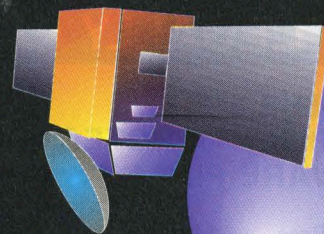
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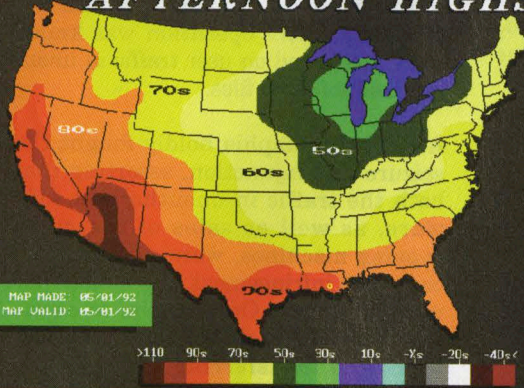
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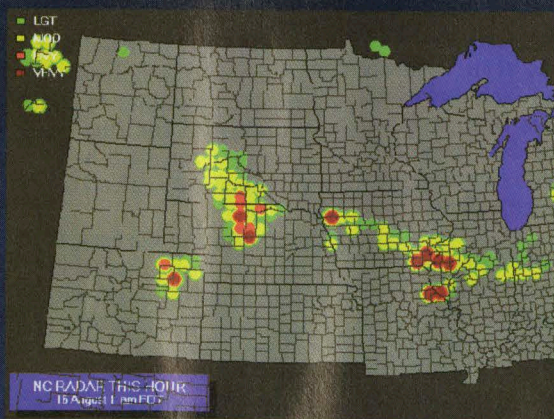
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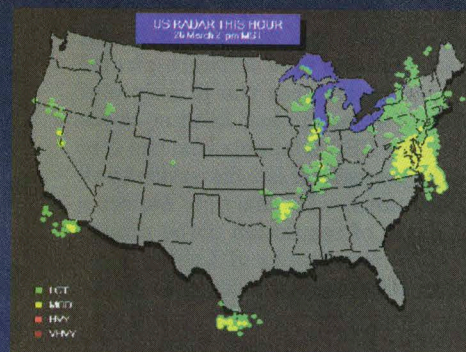
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DOES THE 1ST AMENDMENT PROTECT SOFTWARE PIRACY?

by Lance Rose

Doesn't everyone know software piracy is illegal? Apparently not, based on events following the recent indictment of M.I.T. student David LaMacchia for running a covert software piracy network. It looked like just another petty criminal caught red-handed. Soon after the indictment was announced, however, high-minded tracts circulated throughout the net. Suddenly LaMacchia was no garden variety online criminal, but an information freedom fighter wrongly suffering at the hands of misguided prosecutors. The real surprise was finding that these rose-colored missives issued from no other than law firm Silverglate & Good, acting as LaMacchia's defense attorneys. This Boston-based firm is well known on the Internet due to its public association with the Electronic Frontier Foundation, and has done important work to help secure our online civil rights. They missed the boat by a mile this time, though. Their ringing online defense of LaMacchia (you can find it in Computer underground Digest Volume 6, Issue 31) is persuading quite a few folks on the net that somehow, the 1st Amendment protects software piracy.

If this is what the 1st Amendment means, then the 1st Amendment is meaningless. How can we ever hope to enlighten government agents and prosecutors to respect the 1st Amendment rights of honest system operators, when a well regarded law firm announces publicly that the 1st Amendment protects the acts of a software pirate? Their stance reduces the principle of freedom of speech to just another clever loophole for BBS criminals who can find the right lawyers. It is a disservice to all honest sysops, who can only expect a hellish rain of regulation if the piracy-promoting arguments of LaMacchia's supporters are somehow accepted by the courts.

Plenty of other pirate BBS' and networks are shut down without nearly the fanfare already surrounding the LaMacchia affair at this early juncture. To regain our bearings, let's look first at another recent software piracy case, *Sega v. Maphia*, where a pirate BBS was shut down the moment it was caught,

no questions asked. Keeping this typical case in mind, we'll then consider the various arguments floated through the net by LaMacchia's defenders.

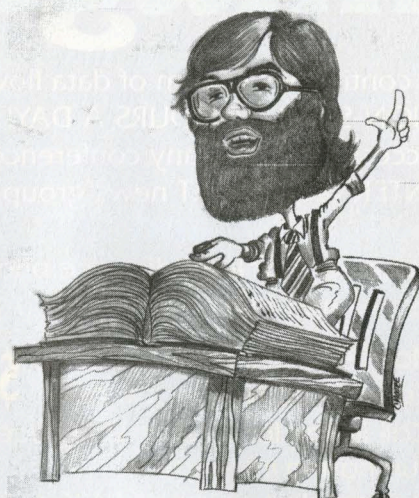
SEGA V. MAPHIA

Sega v. Maphia is an ongoing California copyright and trademark infringement case. It involves the Maphia BBS, which trafficked in videogame software for the Super Nintendo and Sega Genesis as well as a whole bunch of other items. How did they get the software out of the ROM cartridges and on to the bulletin board? These days there are machines made for this exact purpose, with names like Super Magic Drive and Multi Game Hunter. They are used to download game software from cartridges to standard floppy disks, and also to play game software from disks on videogame consoles.

Maphia's illicit game software business was booming. It offered all the most popular titles, even pre-release versions of games not yet in the stores. Unabashedly commercial, it charged healthy membership fees of \$35 per month or \$200 per year, with special barter deals for those who supplied new games for distribution through the board. Maphia also sold the videogame copying machines, needed by its customers to play the downloaded software on their home videogame consoles. Customers who bought a copying machine also received free download privileges on the Maphia BBS, enabling them to obtain unauthorized game software worth more at retail than the price they paid for the copying machine.

Sega inevitably got wind of this tidy arrangement and busted it up. They had Maphia's BBS equipment confiscated under a civil seizure warrant. It wasn't one of the really bad BBS busts, if the judge's report is to be believed. The police copied the hard disk and promptly returned the BBS equipment to Maphia, erasing only the software they believed was on the BBS without permission.

Sega asserted a variety of legal claims against Maphia and its associates, including trademark infringement and false description of origin. We'll focus on the copyright claim. The basis of the claim is simple: Maphia was a BBS on which illegally copied software files were



regularly uploaded and downloaded by callers, without permission from the copyright owners. In fact, it looked like Maphia's entire operation was knowingly predicated on user traffic in unauthorized software files.

Amazingly, Maphia boldly fought the seizure and injunction, asserting that both the traffic in unauthorized software, as well as sales of the game copying machines, were exempt from copyright infringement under the "fair use" exception. On a motion to decide whether Maphia should remain prohibited from transferring the software lifted from the game cartridges, the court easily found Maphia liable for direct infringement of the files on the system. It pointed out that Maphia promoted the upload and download of unauthorized files to and from the BBS, maintained the files on the BBS, and operated the BBS as one side of each upload and download transmission.

So in the Maphia case, the law was clear. If you run a pirate BBS and you're dumb enough to get caught, then you're liable. This comports with basic common sense.

THE LAMACCHIA INDICTMENT

Now, let's go back to the David LaMacchia case. The facts are not as well established as in *Sega v. Maphia*, since it is only at the indictment stage. But the indictment as written is what has come under attack from LaMacchia's defenders, so we will assume it is true for purposes of discussing the 1st Amendment dimension of the case.

LaMacchia, acting under the aliases "John Gaunt" and "Grimjack", set up

the Cynosure BBS surreptitiously on three computers at M.I.T. While it was called a BBS, Cynosure was a little different from the common DOS-based BBS, functioning as a file upload, storage and download site using the File Service Protocol feature of Unix. According to the indictment, from the beginning LaMacchia sought to keep the existence of his BBS secret from M.I.T. officials, as well as the "net.cops". He also put the word out to his cronies on the net that he was looking for files to stock up the 150 megabytes of storage space he had available. What kind of files? Apparently, the mainstream BBS fodder of shareware and free utilities was not good enough for Cynosure. When government agents shut down Cynosure, they reportedly found major commercial software like Aldus Pagemaker, Microsoft Word for Windows, WordPerfect, and even a beta copy of Microsoft's unreleased operating system Chicago.

This stuff didn't show up by accident, either. The indictment includes the following quote from a text file on Cynosure written by LaMacchia:

"If anyone has this stuff, I'd appreciate it. Sim City 2000 Excel 5.0 (Windoze) WordPerfect 6.0 (Windoze)"

For those unfamiliar with DOS-based software, these are mainstream commercial software packages with no business being distributed on a public BBS.

LaMacchia first got into trouble with M.I.T., when they discovered he had commandeered some of their computers for his personal software distribution operation. A few months later, he was indicted by the U.S. government for the crime of wire fraud. This law has been used for decades to prosecute a variety of illegal activities conducted over telephone lines, including the extraction of free telephone service in the 1960s and 1970s through the use of blue boxes and the like. The government says LaMacchia committed wire fraud by using M.I.T. computers without permission to set up a covert BBS for the storage and transmission of programs in violation of copyright.

Why didn't they add copyright infringement to the indictment? It is hard to say for sure, but my guess is the government only wanted to proceed with the most airtight case. There was no question LaMacchia tried to fool M.I.T. by keeping his Cynosure setup on their computers a secret, creating the basis

for the wire fraud charge. On the other hand, a copyright infringement charge is a little less stable in practical terms — you might get a judge who feels that if LaMacchia did not upload the offending files himself, he did not directly infringe anyone's copyright. Interestingly, the wire fraud charge as presented by the government still requires proof that the Cynosure BBS hosted copyright-infringing activities as part of LaMacchia's alleged fraudulent scheme. However, only civil (non-criminal) copyright infringement need be proven to support the wire fraud charge, instead of criminal copyright infringement, which imposes a much tougher burden of proof on prosecutors. Winnable cases are very important to government prosecutors. It's possible that if LaMacchia used his own computer instead of M.I.T.'s for the Cynosure BBS, the wire fraud claim would not have been strong enough for an indictment. In that case, the government would have had to explore a criminal copyright infringement claim more seriously.

Almost immediately after the indictment, Silverglate & Good issued its stout public defense of its client LaMacchia. At the beginning of this article, I referred to their statements as

supporting the position that the 1st Amendment protects software piracy. Don't take my word for it. Here is the kernel of their position in their own words, extracted from Silverglate & Goods' tract entitled "An Issues Primer for the LaMacchia Case":

If current criminal statutes, including the "wire fraud" statute that LaMacchia is alleged to have "conspired" to violate, are interpreted to reach the SYSOP who does not himself upload, download, copy, use, or sell copyrighted software, do those statutes, as so interpreted, violate the First Amendment, and are they therefore unconstitutional?

In looking over that quote, keep in mind that LaMacchia's lawyers do not deny, for purposes of their argument, that LaMacchia actively and knowingly provided his BBS as an upload, download and storage site for infringing software, and that he promoted its use for that purpose to others. Their point is that since LaMacchia was only the sysop, the 1st Amendment protects him from prosecution. They say the only "software pirates" involved with Cynosure BBS, if there were any at all, were its users, who used the BBS as a storage

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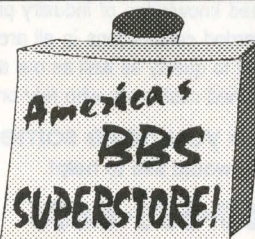
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From this corner, it looks like LaMacchia's attorneys seriously lost their bearings. Many on the net, myself included, agree that sysops should never get into serious legal trouble for illegal files on their system when they are not aware of those files. But Silverglate & Good are extending that principle into the twilight zone. As far as they're concerned, a sysop like LaMacchia can set up a BBS for the primary purpose of transmitting software illegally, and the 1st Amendment will graciously provide the loophole letting him dodge out of responsibility for his actions. They're asking the legal system to give LaMacchia its blessing when he sets himself up as a pirate BBS ringleader, so long as he does not personally use or upload the software in question.

ARGUMENTS IN DEFENSE OF LAMACCHIA

Let's look at the various specific arguments raised by LaMacchia's attorneys and other sympathizers (why this apparently unrepentant juvenile delinquent even has sympathizers is beyond me... must be one of those Internet culture things I never quite got), and what is wrong with those arguments.

Argument #1: This is a wire fraud case, but there is no "fraud" here. To the contrary, the indictment clearly details a fraud — LaMacchia's covert use of MIT's computers, without permission, for a software pirating operation. In fact, under reasoning of the judge in the Maphia case we looked at above, a copyright indictment could also have been issued. By asking for illegal files and providing the means for copying and distributing them, Maphia was held a direct copyright infringer. LaMacchia did exactly the same thing with his Cynosure BBS. He's lucky he wasn't hit with a copyright infringement count on top of the wire fraud count.

Argument #2: The 1st Amendment protects LaMacchia from liability because he was only the sysop of Cynosure BBS, and did not personally upload or download any infringing files that might have moved through the system. It's just so amazing to hear this being stated as if it's a credible position. If the 1st Amendment protects LaMacchia, who knew about the software piracy on his system and actively encouraged and participated in it, then it would protect all operators of pirate BBS'. This is an absurd result on the face of it, and the

1st Amendment argument on his behalf should be rejected for that reason alone.

But if we forget the absurd result for a moment and take the 1st Amendment argument seriously, it still fails to protect pirate sysop LaMacchia. For one thing, there is no absolute 1st Amendment right to infringe copyrights. Indeed, copyright has its own Constitutional authority that can never be overridden by the 1st Amendment. Each time there is a conflict between the 1st Amendment and copyright law, the policies behind enforcing each body of law will be weighed, and some compromise between them reached. The proposition that the 1st Amendment absolutely protects pirate sysops does not reflect any such balance, but instead impermissibly subordinates copyright interests beneath 1st Amendment interests.

Another possibility is the 1st Amendment protection recognized for book stores and magazine distributors — could that work in LaMacchia's favor? This protection was recently held to extend to online systems in their role as speech distributors, insulating system owners from excessive responsibility. If every sysop had to look at the entire content of every message and file on the system to make sure nothing is illegal, most sysops would soon be out of business. It is that enormous a burden. This result would seriously reduce the ability of system users to make their "speech" heard online. To avoid it, the 1st Amendment puts strict limits on legal obligations that would place any kind of burdensome monitoring obligation on sysops.

But that rationale does *not* apply to LaMacchia. He apparently knew all about the illegal file activity in question. In fact, he asked for illegal files to be uploaded to his BBS, and sought a low profile so the cops would not catch him. Finding LaMacchia guilty for illegal activity that he knew all about and personally encouraged would not place any monitoring obligation on honest sysops who are just trying to run lawful online systems. Thus there is no serious 1st Amendment dimension to the LaMacchia case.

Argument #3: LaMacchia should not be prosecuted as a criminal. Silverglate and Good say, "David LaMacchia's conduct was not in violation of the criminal law... this young man [is] among the best and the brightest that our society produces." Do I hear the word "hogwash" whispered in the background? Is LaMacchia one of our "best"

when he organizes a mass software infringement operation while hiding out from the "net cops"? Is LaMacchia one of our "brightest" when he's not smart enough to keep from being caught? I'm sorry, being an M.I.T. student did not elevate LaMacchia high enough above the great unwashed to put him out of reach of the same criminal laws imposed on the rest of us.

Once more, let's give this argument more respect than it deserves. Let's assume that it's really a suggestion that LaMacchia should, at most, be sued by the infringed software companies for civil copyright infringement, and not prosecuted by the State under the criminal law with the associated penalties of a criminal record and possible fines, jail or other sentence (though we're still not going to accept the suggestion he's really a "good guy"). What is the difference between civil and criminal violations? Criminal cases require a higher level of proof. More certainty that the facts asserted against the defendant are indeed incriminating, and that the defendant had criminal intent. So in a criminal BBS bust, if the state's proof leaves open a reasonable doubt whether the sysop knew about the illegal files on the system, the sysop could escape a guilty verdict. But here, the allegations are that LaMacchia himself told users he wanted to remain outside the notice of the "net cops", and asked users for illegal files to be placed on the system for all to download. If the state can prove this, which at this point looks like a pretty good bet, then LaMacchia's criminality will be established. His attorneys would have had a far better argument if LaMacchia neither knew about nor promoted the infringing file activity on his BBS.

Finally, **Argument #4:** LaMacchia didn't make any money off the infringements by his BBS users, so he's not guilty of any crime. Should this make a difference? Of course not. The implication that you're excused from a crime if you don't make any money is absurd. If you destroy someone's house or end someone's life, you're guilty of a crime whether you did the deed for a million dollars or merely for a laugh. Likewise, if you defraud a school to gain the use of its computers, and use those computers to assist others in infringing copyrights, you're guilty of a crime whether or not you personally make a red cent.

Perhaps this money argument is really a backhanded way of saying that since LaMacchia made no money, the file

activity was on his BBS was "fair use" as far as he's concerned, and not illegal. Even if we suppose LaMacchia had been charged with copyright infringement rather than wire fraud, the file transfer activity on Cynosure BBS did not qualify for fair use under any stretch of the imagination. What matters in fair use is the effect on the copyright holder's market, not whether the infringer made any money. In LaMacchia's case, the indictment claims that a million dollars worth of software passed illegally through his BBS. The effect on the software companies whose software was infringed is obvious, and would be just as great whether or not LaMacchia got a dime out of it. In fact, we could easily argue that the free distribution of infringing files through Cynosure had a more devastating impact on the companies whose software was infringed than illegal distribution through other BBSs which, like Maphia, charge significant amounts for the privilege of downloading pirated software.

HOPPING OFF THE BANDWAGON

Riding the 1st Amendment bandwagon has been fun up to now, but it's time to hop off when it veers wildly in the direction of seeking to protect rank software piracy. Leaving aside the philosophical question of whether "information wants to be free", there is a grave practical danger in excusing pirate BBS sysops from criminal liability. Many of the largest software, entertainment and publishing companies in the world are now on the net, actively seeking to reduce unauthorized online use of their software, texts, images and other works. Pirate BBSs are one of the few targets these companies can focus on, since it's nearly hopeless to try and combat infringement on the level of the individual modem user. An appropriate, if at times uneasy, balance is in place for now, in which honest sysops can go about their business of distributing materials that are for the most part legal, while pirate and bootleg boards are shut down whenever they're discovered. But if we let pirate sysops off the hook of criminal prosecution, it will immediately cause the large companies to push for the Congressional BBS regulation necessary to give them confidence that their intellectual property assets are secured. If this comes to pass, honest sysops will wake up one day to find that their job descriptions now include close, detailed monitoring of all materials on their systems. What a drag.

As things stand today, innocent sysops who occasionally and unwittingly pass an illegal file qualify for 1st Amendment protection so they can pursue their good works, but the free speech umbrella offers no shade or solace for wily software pirates running underground BBSs. Blatant software piracy is one situation where the copyright laws work predictably and efficiently, and where enforcement of those laws against the losers who get caught sends a useful message to other practicing and would-be software pirates. Hopefully, the current regime in which it is clearly illegal to run a software piracy BBS will survive the overwrought and misplaced civil liberties arguments of LaMacchia's very vocal defenders.

[Lance Rose is an attorney and writer practicing high-tech and information law in Montclair, NJ with the firm Lance Rose & Associates. He can be found on the Internet at elrose@path.net, and on Compuserve at 72230,2044. He is also author of SysLaw, the legal guide for online service providers, available from PC Information Group at 800-321-8285. - Editor]



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NEW CHANGES ON DELPHI ARE JUST THE BEGINNING

by Walt Howe

Many changes are underway on Delphi that will transform the service in the months ahead as much as the addition of full Internet services has in the past year and a half. Delphi's acquisition by Rupert Murdoch's News Corporation has had little visible effect so far, but there is much underway behind the scenes that will soon begin to show in the features and services available to members. Major increases in total membership, hardware, speed, connections, software, and services are in progress. Member Services alone, has doubled in size in recent months. These improvements are being combined with an increased partnership with other organizations in the Murdoch communications empire, which include TV GUIDE, Fox Broadcasting Company, Twentieth Century Fox, HarperCollins Publishers, The Times of London newspapers, British Sky Broadcasting, STAR Television, and others. It is clear that Delphi intends to grow, improve and challenge Prodigy, CompuServe, and America Online and any other contenders for leadership in the online industry. Some of the early steps towards this are outlined below.

14.4K SERVICE

Since early this year, Delphi has been testing 9600 baud and faster service. Prior to this, members who called at 9600 baud through Sprintnet and Tymnet were getting approximately half speed throughput—better than 2400, but definitely not at full speed. Delphi has been randomly

selecting from those who call at 9600 and giving them full speed access, and gradually increasing the percentage of those who get full access. Members who called direct to Cambridge, Massachusetts at **617-492-9600** were given full 9600 baud service, and more recently have been upgraded to 14.4K. The early tests showed a need to optimize download software for the speeds to reduce the chances of interrupted downloads. The testing period and the fixes appear to be near an end at this writing. Delphi would make no promises, but it is very likely that full speed will be official by the time this appears in print.

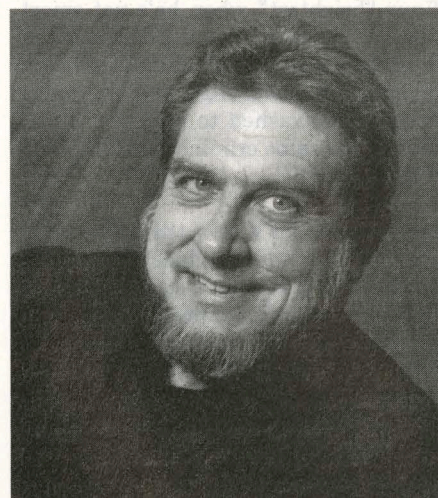
As Sprintnet and Tymnet add 14.4K modems to their nodes, Delphi will support those, too. Delphi has made major increases in hardware to support the increased speed and increased customer load. Customers who want to check for availability of 9600 baud numbers in their area can call Sprintnet at **800-877-5045**, extension 5 and Tymnet at **800-336-0149**.

The one remaining unanswered question that members have been awaiting is the announcement whether there will be any price increase for the faster speeds. My hunch is that prices will remain the same, but that is NOT official.

INTERNAV SOFTWARE

Last month, this column reported that Delphi had demonstrated new Graphical User Interface (GUI) software at a computer show. Since then, the software has been in active beta testing with a large group of volunteer testers, including this writer. The new software, which is just the first of several planned generations of software

upgrades, is for Windows users only. It provides customizable point-and-click access to Delphi's different areas, and an easy to use editor



for e-mail, message forums, and newsgroups. The editor takes advantage of Windows' strengths and overcomes one of Delphi's weakest features.

The second thing it does is provide Zmodem software optimized to work well with Delphi. Different versions of Zmodem perform with varying degrees of success on Delphi now. Some versions that do not conform well with the Zmodem developer's specs have trouble with uploads, in particular, on Delphi. Finally, it provides standard vt100 emulation that is widely used on the Internet and is a source of trouble with some of the marginal implementations found in some software packages.

KESMAI ACQUISITION

News Corp., Delphi's parent organization has acquired Kesmai Corporation, a leading producer of innovative multi-player games. Kesmai is known for Air Warrior, Island of Kesmai, Harpoon, and Battletech in online versions. Kesmai's games will be accessible through Delphi Internet Services later this year. The press release announced that they would be available in May, 1994, but this seems to be a bit premature. This positions Delphi to deliver the next wave of interactive multimedia. Kesmai was the first game developer to use sound and graphics in a widespread online environment. The Kesmai games Combined with Delphi's ongoing project to develop a new generation graphic interface (not the Internav mentioned above, but a later one), make this service one to watch.

Gopher Menu
Page 1 of 1

- 1 PERSONAL FAVORITES
- 2 ABOUT THE WIDNET GOPHER
- 3 DISABILITY RELATED INFORMATION
- 4 ECONOMICS & CENSUS
- 5 EDUCATION
- 6 EMPLOYMENT INFORMATION AND RESOURCES
- 7 HEALTH AND MEDICINE
- 8 HELP FILES, PHONE BOOKS, AND INTERNET RESOURCES
- 9 ONLINE LIBRARIES & ELECTRONIC TEXT RESOURCES
- 10 TECHNOLOGY RESOURCES & TECHNOLOGY POLICY
- 11 U.S. GOVERNMENT DOCUMENTS, LAW, LEGISLATION, & JUDICIARY
- 12 WEATHER AND TRAVEL

Menu
Text
Menu
Menu
Menu
Menu
Menu
Menu
Menu
Menu
Menu

Enter Item Number, ?, or EXIT:

NEW MEMBER SIG

Delphi has just added a New Member SIG where the clock is stopped, and the time is not charged against the member's monthly allocation (although business hour surcharges still apply for Sprintnet and Tymnet callers). This is an area where help files and common utilities can be found in one place, where new member conferences will be held, and where members can practice using online commands and editors. It is also a place to ask questions and get answers from staff and other helpful members. A new Getting Started Guide has just been released, which tells new users how to use basic commands, where to find help, and how to get the best use out of the SIG.

CHARACTER-BASED OPTION TO REMAIN

For all the talk of GUIs, there are many who do not want to use one at all. Power users believe they can get best performance from a character-based interface. Developing a GUI without hindering performance is the real trick, and only time will tell whether Delphi can ever produce a GUI that power users will accept. Delphi has pledged to keep the character based options open even as new software appears.

A big strength of a character based interface, such as Delphi's present one, is that it can accommodate any computer without special software. This allows the orphan computer owners, those who are still using

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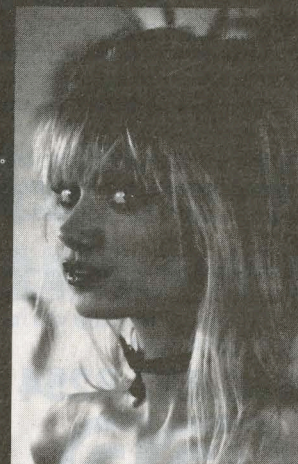
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c64's, TI-99/4As, Apple][s, CoCo's, Atari 8-bits, CPM machines, and the latest orphans, the Amiga owners, to participate online, too, even when new software is introduced for Windows and Mac users.

BLIND USERS AND WIDNET

Another group who benefits from a character based interface is the blind and disabled. There is a lot of software available to assist those who cannot see the screen normally. Generally, the software will read aloud what is on-screen, spelling words that are not in its vocabulary or not pronounceable. The more sophisticated versions will skip over ASCII graphics, and not try to read every character in a graphic signature, such as those that

many people like to load into their signature blocks.

The WIDnet SIG on Delphi provides a national online presence for the World Institute on Disability. It provides a major source of information, software, and support for the visually impaired, and those with other disabilities. If you want to access the Catalog of Recordings for the Blind, read the text of the Americans for Disabilities Act, find job sources for the disabled, or share your experiences with others, this SIG is the place. The managers of the WIDnet SIG are some of the most knowledgeable and creative on Delphi. The screens pictured here show some of their gopher menus which point to disability-related resources available on the Internet.

GETTING ONLINE TO DELPHI

To learn more about the changes underway on Delphi, send e-mail to walthowe@delphi.com or try out the 5-hour free trial for yourself. Call 800-695-4002 by modem and use the password INTERNETSIG.

DISABILITY RELATED INFORMATION Page 1 of 2

- | | |
|--|--------|
| 1 Disability and Rehabilitation Resources from St. Johns U. | Menu |
| 2 Cornucopia of Disability Information | Menu |
| 3 Disability Information (University of Maryland) | Menu |
| 4 UCLA Disabilities & Computing Program | Menu |
| 5 Deaf Gopher | Menu |
| 6 U.S. Department of Education Gopher | Menu |
| 7 SAIDIE - The Intellectual Disability Network (Under developm | Menu |
| 8 Recording For The Blind | Menu |
| 9 Library of Congress Services to the Blind and Physically Han | Menu |
| 10 Trace Resource Center Gopher | Menu |
| 11 Software & Newsletter Library (Misc.handicap's FTP) | Menu |
| 12 Funding Programs | Menu |
| 13 NIH Guide to Grants and Contracts | Menu |
| 14 World Institute on Disability (WID) Public Library | Menu |
| 15 Action for Blind People (U.K.) | Menu |
| 16 Social Security Administration Database | Menu |
| 17 Women's Wire Gopher [8101] | Menu |
| 18 ERIC Digests | Search |
| 19 ERIC | Menu |
| ERIC - Full Text Education Abstracts | |

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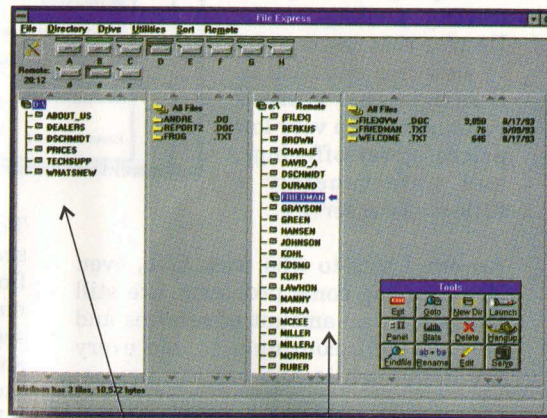


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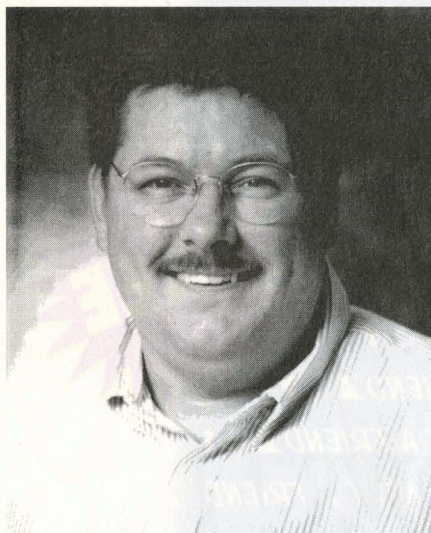
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AMERICA ONLINE

A UNION IN CYBERSPACE



by Dave Tennant

America Online continues to increase its share as one the major online services of choice, even though log-on problems still persist. AOL doesn't yet rival CompuServe or Prodigy in sheer numbers, but if growth rate is any indicator, it soon will. AOL has just had yet another of what many would consider a great earnings period, posting **\$1.824 million** (up from **\$1.499 million** in 1993's third quarter) on sales of **\$29.188 million** for the quarter ending in March. According to AOL spokesperson Pam McGraw, the figure is more than double the same figures from a year earlier, demonstrating AOL's increasing popularity. Even so, the gains in revenues, (178 percent!) trailed the growth in subscribers (191 percent!).

Their impressive earnings are a direct result of the phenomenal growth in subscribers. Some competitors have suggested AOL's earnings will be considerably lower as they begin to make more investments in expanding their backbone and capacity. AOL's only response so far has been to say that they have recently "doubled their capacity." Unfortunately, they won't clarify what this means. From what to what? Have they doubled their CPUs, RAM, disk space, the number of simultaneous connections possible, telephone lines or what? Who knows? Prodigy is reported to be capable of

40,000 simultaneous connections, but the other online services, including AOL, are tight lipped about it. Prodigy, CompuServe, and GENie have their own networks, plus they offer access through packet switching connections. Delphi, Bix, and America Online, however, rely on packet switching networks, such as SprintNet and BT Tymnet for national local access.

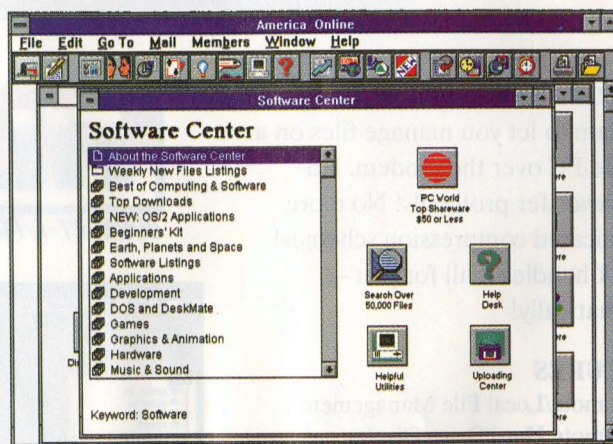
Getting subscribers and keeping them is what it is all about, and apparently that is what America Online is doing. AOL had 712,000 subscribers at the end of this quarter, against 245,000 subscribers at the end of March, 1993. And the company claims to have reached 800,000 warm bodies in May 1994.

Drop rates are high for all the commercial online services and they must be high on AOL, or are they? Looking at mail online and talking to my friends on the service leads me to believe the company continues having difficulty providing access to customers, who still report having problems in trying to log on during peak periods. Despite this, users seem to view this situation as if AOL were a GREAT restaurant with very low prices, great offerings, and unfortunately a little wait for service.

Anyone I talk to who tries AOL, even those having some problems, are still amazed at the amount of services and benefits AOL continues to add every month — while not raising prices. AOL is getting even more aggressive in their marketing. They have inserted starter disks in several national computer magazines. Their starter kits are in the packaging for Hayes and Practical Peripherals modems, PCTools for Windows, and so on. If AOL keeps this up I won't have any more friends to give the software to, so I won't have to buy more 3.5-inch diskettes. It is easy to talk someone into using the service when 1) the software is easily accessible, and 2) the interface is so inviting and consistently easy to use once they sign on.

FILE SEARCHING "LOGICALLY"

Speaking of ease of use, one feature that will make any AOL user's life easier is the system's little known file search utility, a tool to help you find what you need without a lot of fishing around and racking up online time. You can find instructions for using the file search utility by key wording "Software," and clicking on the "Help Desk" button in the "Software Center." There you'll find a button for "Helpful Utilities." Once there, download a file called "Tip # 1: How to Find Files Online," by Thomas L. Quindry, (who, incidentally is the forum leader for the PC Software Center). It is must reading for anyone who has to locate numerous files and also wants to minimize time online.



The File Search Utility lets you use search words and select categories to find programs and files you like. If too many or too few files are listed from a search, the logical operators AND, OR, and NOT are available. Few users are aware AOL has this powerful capability.

To get to the system wide File Search Utility, you can use the keyword "Quickfind." Each Forum will probably have their own file search utility button, "Software Search" that searches for files specific to that forum. Be sure to check out Quindry's tips; he is one of those generous souls who has done a great job defining all the ins and outs of file searching on AOL including using logical qualifiers.

All of the files on AOL are given a description that informs the member of version number, special considerations regarding necessary hardware, or its use. The information provided is even as helpful as telling you if the install is tricky or what the newer version may offer.

TOP PICKS

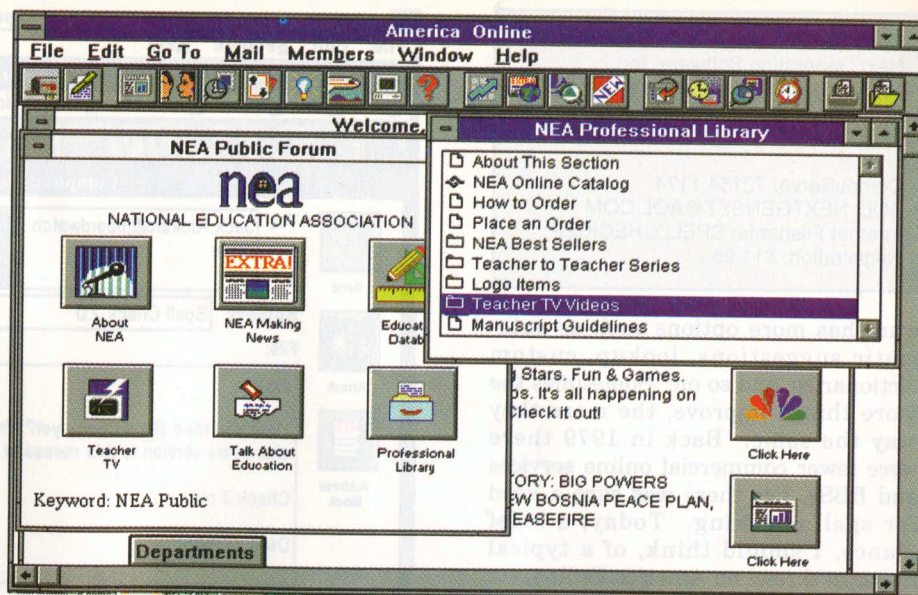
To make sure that I am aware of the software available online, I make a point of checking the Top Picks button usually available in each forum. I also make a point of browsing the libraries in each of the forums and checking the download counts to see which files are most popular.

ACCESSING YOUR LOCAL UNION

It isn't local and it certainly isn't everybody's union, but being a teacher, I like to go there and read up on the issues concerning my chosen profession. (I imagine that sometime in the future, other unions will take advantage of this vast network and make their own forum.) I used to log into this forum by keywording "NEA," but the forum name has changed and is now called "NEA Public." This forum can be found in the Learning and Reference department from the opening screen. (By the way, the Learning and Reference Center offers a vast array of forums including the Interactive Education Services, the Electronic University Network, an Academic Assistance Center, a Parent's Information Network, National Geographic Online, The Library of Congress online, the Association for Supervision and Curriculum Development online, as well as Compton's Encyclopedia, the College Board online, and the NEA Public Forum.)

The NEA Public Forum has six major areas. The education database area has documents and articles on teaching as a profession, student learning, education-related organizations, and professional development opportunities. I found discussions on child-care coordination and advocacy, business and education partnerships, various state actions concerning parental choice, and enrollment expenditures for all 50 states.

This department of the NEA Public Forum also includes the Daily Report Card, an eight page newsletter that encapsulates the education reporting



that appears in some of the nation's top newspapers and magazines. In the NEA Making News area, I found news releases, recent speeches and congressional testimony delivered by NEA leaders, plus the full text of op-ed columns placed by the NEA in the Washington Post and other publications. (This was helpful when I was recently researching information on the various healthcare plans for an economics class portfolio assignment.)

In the "NEA Professional Library" area I found the latest catalog of books and other professional development resources published by the NEA. I was able to research some articles on critical thinking, collaborative learning methods, and take a look at the latest research as well. Neater still, I could order any title right online. In the area of Teacher TV, I found information about the upcoming programs in a TV project series co-produced by the NEA and The Learning Channel, evidently carried every Sunday by cable systems throughout the United States. I didn't really know anybody to speak to right off, but if I did, I would post it in the "Talk About Education" area. I think this area has great potential for teachers in various curriculums, to share their thoughts, help, and ideas much like they already do on FrEdMail and the Internet Newsgroups. This might be an inexpensive manner for a school to have a quasi-BBS type system. I envision that a teacher could make parents aware of this resource, have them share screen names, and then use their own personal accounts to leave e-mail requesting or providing information about their student — or vice versa. It bears looking into.

Is that Cyberia or Siberia? Check it with "Spell Check 2.0" online.

I remember it as clear as if it were yesterday. Back in 1979 I was taking a computer class at Fullerton College. The instructor sort of got sidetracked and was talking about the state-of-the-art Apple II (remember those days?). He began demonstrating a hot new spell checking program. Later on that day I got a paper back from my Freshman Comp class scarred so full with red markings that I couldn't read the original type. From that day forward, I decided I was going to use this magical spell checking software.

Back then, the software was "magical" to me, but by today's standards it would be quite limited. Because of lower floppy capacities and because the traditional dictionary companies had not yet licensed their stuff the dictionary size was only about 20,000 words. Sometimes the dictionaries even had typos in them! Even if the dictionary correctly detected the error most of the time the software could only place a mark next to it, usually a # or * sign. Then the user would have to re-edit the file, find the #/* signs, manually look up the proper spelling, and manually type the correct spelling.

Computerized spell checking with these limitations was a matter of diminishing returns because it could take several time-consuming steps to proof a document. Since then, spell checking on a PC has improved a whole lot. For openers, the dictionaries are larger and more reliable. The soft-

Spell Check 2.0

Next Generation Software, Inc.
2831 Gallows Road
Suite 201
Falls Church, VA 22042

CompuServe: 72154,1174
AOL: NEXTGENSFT@AOL.COM
Internet Filename: SPELLCHECK.ZIP
Registration: \$11.95

ware has more options such as automatic suggestions, lookup, custom dictionaries, and so on. Sometimes the more things improve, the more they stay the same. Back in 1979 there were fewer commercial online services and BBSs, but there was sure a need for spell checking. Today, a brief glance, I should think, of a typical message thread on America Online, (or CompuServe or Prodigy) shows e-mail spell checking is still sorely needed.

You may be thinking, wait a minute, users can use their word processor and its built-in spell checker, save the document as ASCII text, and import it into the service's front-end software. You're right of course, users can do that, but that's not what most users do. Basically, it's the old diminishing returns problem played out all over again.

Well, I don't know about you, but I'm tired of misspelling things in my e-mail messages. The other day I found the answer, **Spell Check**. Okay, the name isn't too creative, but it is certainly descriptive. Spell Check is designed to interact with the Windows Notepad, WinCIM, GoCIS, CsNAV and America Online Windows software. These front-ends provide you with the functionality of a word processor, but they don't support spell checking. This little utility adds that capability.

By assigning Spell Check a hot key (in the Program Manager) such as **CTL+ALT+S**. Once started and minimized, it can be invoked automatically while editing a file. From there, all you have to do is proofread the message — Spell Check can automatically make the needed corrections. There are two other steps involved, but they are easy ones. When you start Spell Check, if necessary, you specify the front-end you're using and click the "get the message/file button," and when you're finished spell checking you have to click the "update the message/file button."

Once started, Spell Check gives you the option of specifying which

editor/front-end you are using. For the Windows Notepad and America Online that's it. In the case of WinCim, GoCis, and CsNAV you must also specify if the message is for e-mail or for a forum message. Spell Check supports both Version 1.0.X and Version 1.1.X of the CompuServe Information Manager (including the ZiffNet Edition) as well as Logix Systems' GoCIS. (GoCIS can be downloaded from **CIS:WUGNET**, by the way.) Spell check also supports WinCIM, and the ZiffNet Edition that provides additional functionality for ZiffNet users. (You can download WinCim on CompuServe, from **CIS:WINCIM**.) CompuServe recently released a new front-end now called CsNAV which Spell Check also supports. (CsNAV can be downloaded from **CIS:CSNAV**.)

The current version of Spell Check is 2.0. It's marketed as shareware, by Next Generation Software, Inc. The dictionaries were licensed by Visual Tools, Inc. Registered users receive an automatic installation program and complete written documentation, and a free upgrade to the next registered version of Spell Check. CompuServe users can register online by entering, Go **SWREG** (Spell Check's ID# is 1761).

The speed of the program's spell checking engine can be easily adjusted, but increasing the speed will take a little more memory. Multiple custom dictionaries are supported, and Spell

Check can share custom dictionaries with MS Word for Windows.

Not being a Windows techie, I had to look up this option in Spell Check's documentation. To attach a custom dictionary:

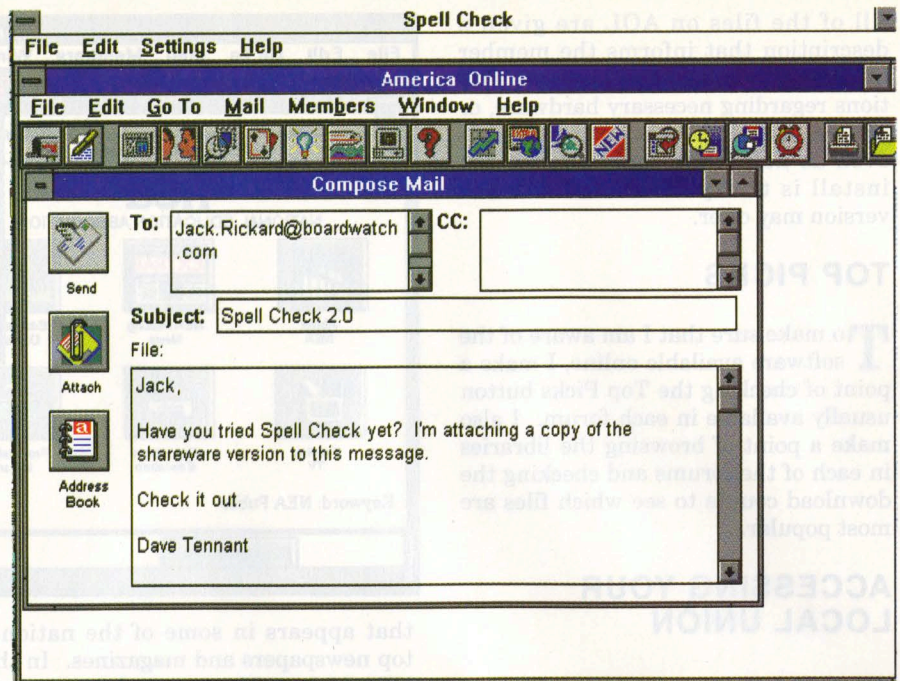
1. Select the **Spell Options** item from the settings menu.
2. Press the **Open Custom** button.
3. Enter a file name in the dialog box.

a. To attach to Word for Windows custom dictionary simply select the file **C:\WINDOWS\MSAPPS\PROOF\CUSTOM.DCT**

b. To attach to WinCIM/CIS 1.x custom dictionaries simply select the file **C:\SPELL\CUSTOM.DCT**. One thing that threw me off a bit was the Spell Check defaults to the file extension ***.VTC**, NOT to the default file name **C:\WINDOWS\MSAPPS\PROOF\CUSTOM.DCT** I was expecting.

The registered version handles installation automatically. Unfortunately, the shareware edition has to be manually installed by the user. Apparently, the author believes withholding the automatic installation program is an incentive to get people to register — more likely, it is an obstacle for novice users.

Installation requires making the subdirectory **\SPELL (MD c:\spell)** and unzipping software



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(pkunzip wcpell.zip c:\spell). These steps could be a problem for Windows users not adept with the DOS command line. But then again, shareware authors have a tough time making a living and I suppose they have to do what they can to get people to send in their registrations.

Another problem some users may face is that the file **VBRUN300.DLL** (a Quick-BASIC routine) is also needed in the **C:\WINDOWS\SYSTEM** directory. Fortunately, users who don't have it can download it from America Online and CompuServe. Before downloading **VBRUN300.DLL** check your **\WINDOWS\SYSTEM** directory for the file. Many applications require it, thus you may already have it on your system. I checked and found that I already have the files **VBRUN100.DLL**, **VBRUN200.DLL**, and **VBRUN300.DLL** on my system.

CompuServe users can download **VBRUN300.DLL** by:

1. **GO WUGNET.**
2. Open the "Batch and Basic Lib" Library 3. Download "Updated Visual Basic Run Time" dated 10/24/93.

America Online users can download **VBRUN300.DLL** by:

1. Select the **Computing & Software** item from the **Go To** menu.
2. Press the **Software Center** Button.
3. Press the **Search over 45,000** files button.
4. Enter **Vbrun300.dll** and press enter.
5. Download the File.

Don't forget, if you download **VBRUN300.DLL** you will have to unzip it:

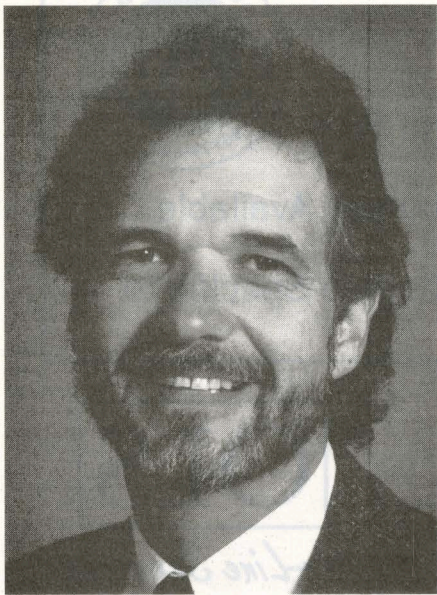
pkunzip vbrun300.zip c:\windows\system

The author recommends setting up **CTRL+ALT+S** as the hotkey, starting Spell Check, minimizing it and then starting the front-end software. From there, to begin spelling just press **CTRL+ALT+S**. Spell Check doesn't automatically recognize which front-end you're using, but if required, this setting can be changed on the fly.

Overall Spell Check is a good program which adds an important feature to front-end software that should have been included in the first place. The convenience of shareware distribution including online downloading and registration, the usefulness of the function it performs, and its modest registration price (**\$11.95**) make it an excellent choice for online users.

Lastly... Question: Why is PCAO's (the DOS version) future endangered? Answer: America Online, Inc., has stated that once the Geoworks Ensemble 2.0 version of America Online is completed, there will be no further development of the AOL software under PC/GEOS. The reason cited was that WAOL (the Windows version) has been hugely successful and now accounts for approximately **400,000** AOL users to PCAO's **100,000** users. (MAC users account for **200,000**.) With WAOL being so much more popular, future development on the PC side of AOL will be limited to the Windows AOL software. Oh well, so goes the market. Till next time.

ELECTRONIC STALKER TARGETS PRODIGY MEMBERS



by Ric Manning

What happens if a Prodigy member sends an offensive or pornographic message to your electronic mail box? Prodigy tells you to report abuse and harassment to network officials.

"If someone calls me pond scum, we'll send them a warning," said Prodigy Communication Manager Debra Borchert. But if the messages are seriously abusive, "we immediately pull the plug."

But what if Prodigy can't find the offender? What if he (or she) is hiding behind membership accounts purchased with phony credit cards? And what if the harassment continues for months and months?

That was the situation last summer when several women complained that they were being subjected to electronic harassment. One woman said her mailbox was stuffed with threats and hate mail from someone who came to be called the Prodigy Stalker. Another said the stalker sent a pornographic message to her 9-year-old daughter.

While complaining to Prodigy, the women also went public with posting about the stalker on the Member

Services Bulletin Board. Larry Greenberg, a systems analyst from New York, posted messages supporting the women and he, too, became a target. In addition to hate mail and ethnic slurs, someone sent a fax to a magazine where Greenberg is a contributor accusing him of being a child molester and a rapist.

Prodigy eventually enlisted the help of Frank Clark, a Fresno, California, detective who specializes in cyberspace crime. And Borchert said the service did all it could to catch the offender.

But Greenberg and Clark see it differently.

"If I had a dollar for every time Prodigy said it was working on it. I could retire a rich man," he said. "Prodigy deliberately misled us. They lied through their teeth."

"Prodigy didn't help from Day One," said Clark, who said in May he was still waiting for information he had requested last August.

"In the future when I deal with Prodigy, it will be from a position of strength — through the grand jury system or with a search warrant," Clark said. "This investigation cost the people of my city a lot of time and a lot of money when the information could have been provided in a couple of hours or a couple of days."

Although Borchert has been the public spokesperson for Prodigy about the stalker case, Clark said "she doesn't know what's going on in this case. She doesn't know what evidence has been given to me and she wouldn't know what it was if I showed it to her."

Clark and Borchert do agree on how the case landed on Clark's desk. Acting on the complaints from members, Prodigy identified a subscriber in Fresno whom it believed was the source of the harassment.

"They had a name and an address, but they didn't know if it was real," Clark said. "They wanted him to cease and desist. Later they called and wanted him prosecuted because he wasn't stopping. Their concern wasn't only harassment of members but also unauthorized use of credit cards and theft of services."

Both Prodigy and Clark suspected that the stalker had obtained several Prodigy start-up kits and received accounts and passwords using false names and credit card numbers.

"We learned we had a problem here," said Borchert.

Prodigy start-up kits are notoriously easy to get. They can be requested directly from the company and Prodigy sends kits to current members who want to recruit their friends. A valid Prodigy subscriber can legitimately receive up to 10 kits and some people have found ways to get many more.

"It looked like the person used a normal account to read to posts, then stockpiled Prodigy kits to use to send e-mail," Borchert said.

Clark, who believed he knew who was behind the attacks, said he asked Prodigy for IDs that were sent to the suspect's addresses, logs of online activity that took place under those IDs, demographic data about the member and passwords. He said the data would be cross-checked with Fresno telephone records.

What he got, when it finally arrived, was 20 pounds of raw data.

According to Borchert, Prodigy lacked both the legal authority and the manpower to do much more. She said Prodigy complied with every request for membership data made by the Fresno Police. But she said Prodigy was cautious about protecting its members' privacy.

"We have two million users and all this data is privacy sensitive," she said. "We couldn't assign 20 employees to get the data. Only one person was authorized to do it and we had to write a program for each request."

But Clark and Greenberg don't buy that explanation.

"That's why we have computers," said Clark. "I've worked with a lot of computer companies doing investigations and I know what it takes to retrieve records."

"This possible suspect's information is not intermingled with someone else's

other information in such a way that you can't pull it out," he said.

"Any good programmer could do it in a few minutes," said Greenberg.

After months of work, the Fresno Police arrested Mark Johnson, 39, and charged him with grand theft, 44 counts of fraudulent use of a credit card, 52 counts of making fraudulent credit applications, distributing obscene material to a minor, attempted oral copulation with a minor and attempted sodomy with a minor.

But a week after the charges were filed, the Fresno County district attorney's office said police had not gathered enough evidence to sustain the charges and the case was sent back to the police department.

New charges had not been filed by mid-May. Clark said the case had been divided between Fresno police units with one working on the credit card fraud charges and another working on the sexual abuse charges.

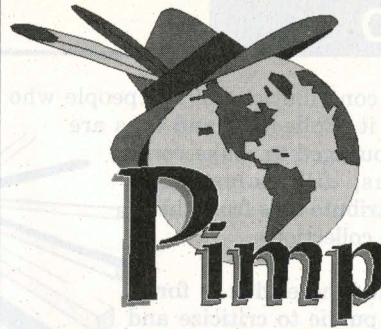
Meanwhile, Prodigy says it is tightening its policies on new memberships. In a public posting, Jerry Laubhan, Prodigy's director of member services, said Prodigy now requires a credit card for any member requesting a new ID or additional membership kits. And he said Prodigy also now limits the number of kits issued under the Member-Get-A-Member program.

Lubhan, however, has not said that Prodigy will verify an applicant's identity and credit card before a password is issued.

"There is no verification on Prodigy," said Clark. "Security is severely lacking." But he also said he believes Prodigy is trying to improve. "There are changes now where I don't think they took it seriously at first."

Borchert said Prodigy will also issue a new user ID for free to members who complain that they have been harassed. "We also encourage them to stay off the bulletin boards for a month," she said.

At the same time, Prodigy members and officials are encouraging other users to be cautious about sharing personal information online. Some suggested not using Member List option, which lets subscribers list their names and home towns.



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Borchert said Prodigy is also learning along with its members about the perils and pitfalls of online communication. "We're in a new frontier here. We're making it up as we go.

"I think (the harassment) was shocking to those people who were involved," she said. "Now that the shock is worn off, we need to treat the information highway like a regular highway in that you have to be a defensive driver."

In another public post, Evelyn McHugh, one of the stalker victims, reminded other users that "no one on this service can be considered to have been verified to confirm that they are whom they claim to be, and that all members need to use reasonable precautions in what they do and say online, publicly and privately.

"It is a sad fact of life that people who wish to exploit the goodwill and friendliness of others exist here, and can use the lack of verification to help conceal their identity and to protect them-

selves from prosecution for their actions," she said.

She also advised adults to watch how their children use Prodigy. "If you would not let your child play outside your home without supervision, they need to be supervised here, too."

Although the story isn't over, it does have one happy ending. Over the months that Greenberg and McHugh were trying to combat the stalker, they got to know each other through e-mail and eventually met in person. In May, Greenberg and McHugh decided to get married.

[Ric Manning writes about computers and technology for The Courier-Journal in Louisville, KY. His weekly column on consumer electronics is syndicated through the Gannett News Service. Ric reads his e-mail at ricman@iglou.com on the Internet, 72715,210 on CompuServe and USJM92A on Prodigy.]

Great Balls of Fire! CompuServe Tunes Up For Music Fans

by Ric Manning

It was the Deadheads who figured it out first.

Back when suits from the record companies were chanting "I'm not worthy" to MTV, Grateful Dead fans were discovering how electronic mail and online conferences could create a whole new relationship between a rock band and its audience. They used The WELL to post tour schedules and record release dates, swap concert information and exchange bootleg tapes and backstage gossip.

Have I mentioned merchandising? The activity on the nets tied in nicely with the Dead's marketing machine. Last Christmas the band's toll-free order lines were overloaded with kids buying tie-dyed shirts and post-hippies like me trying to get a skull-and-roses mouse pad.

Like David Crosby said, it was a long time comin'. But now the people who run the record business have finally discovered that there just might be some synergy between music and modems. And CompuServe is happy to show them the ropes.

"We're seeing people who wouldn't give us the time of day now knocking down our doors to get in," said CompuServe's Michelle Moran. "It seems like everyone who's involved now in the music industry — fans, artists, editors and record labels — are realizing that this is a new means to market and to be in touch with the business."

CompuServe is courting them all by putting all of its music-related services under one umbrella area called the CompuServe Music Hall.

The centerpiece of the hall is the All-Music Guide (**GO ALLMUSIC**), a searchable database of more than **200,000** records and discs. The guide, created by Michael Erlewine, is a companion to the reference collection used by Musicland, CD-Connection, and other music retailers.

The Guide is a work in progress, says Erlewine. It changes every day through

the contributions of the people who use it. Collectors and fans are encouraged to make corrections, fill holes and contribute lists from their own collections.

"The whole idea is for the public to criticize and update the database," said Erlewine. "Someone recently sent us a database of 60,000 folk records and we've also got a list of 4,500 reggae albums that we're looking at."

Erlewine said relying on fans has proved to be more productive than getting information from the record companies.

"There are about 2,500 record companies and they are very disorganized. It's very hard to get information out of them," he said. "But there are a lot of fanatics who love every artist and they want you to have every album and all the bootlegs."

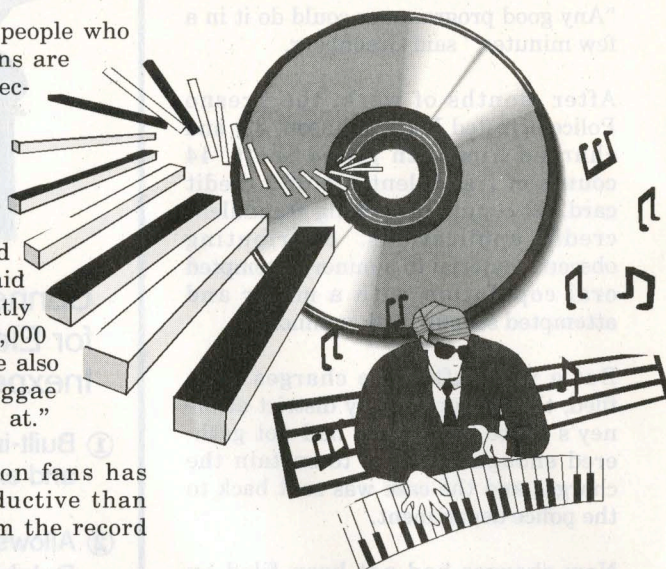
You can search for a particular artist or album using the artist name or album title, its AMG rating, personnel, song title or genre. Type in "Neil Young" and you get 44 entries, including a few bootlegs and promotional records.

Pick one of the entries from the list and you get more detail about the album, such as when it entered the Billboard charts, and a brief review. The guide also includes artist profiles with a chronology of their work and pointers to related artists.

The All-Music Guide is great for settling music trivia questions, like what was the Jefferson Airplane album that came between "Surrealistic Pillow" and "Crown of Creation"?

Fans of different genres of music can discuss the material on the database in the All-Music Guide Forum (**GO AMGPOP**). In the section devoted to classical music, the big question was when will classical music be added to the collection?

Erlewine said the classical entries were delayed by the difficulty in getting the huge AMG database up and running on CompuServe. The classical collection, which Erlewine said is larger than the pop listings, was scheduled to be loaded by the end of May.



Among the other offerings in the Music Hall are:

Music Vendor Forum (GO MUSICVEN) — Major recording companies, such as Warner Bros., Geffen, RCA and Polygram use the forum to post sound bytes of new releases, tour schedules, artist biographies and discographies, GIF images and multimedia presentations in Musicven's extensive libraries.

The sound bites are usually stored in WAV or MIDI format and many are quite large, even when they're compressed. An 8-bit mono sound clip from Monster Voodoo takes up almost 500K.

RockNet Forum (GO ROCKNET) — This is the place for news from the rock world: who's on tour, what new releases are coming and who's breaking up. Reviews, music statistics and information on special events are stored in the library.

Music/Arts Forum (GO MUSICARTS) — An online meeting place for musicians. A new section called Learning to Play is devoted to electronic music instruction.

MIDI/Music Forum (GO MIDIFORUM) — The forum is packed with MIDI and WAV files for electronic instruments and sound cards. Use the sections devoted to MIDI vendors to connect with Roland, Kurzweil and other companies.

Moran said CompuServe is working on new features for online music fans.

Several music publications, including trade and fan-oriented magazines, are likely to spin off an electronic product. New online products are likely to make more use of images and sound files. Online ticketing is another option that's being studied.

"Stay tuned," she said, "because we're just seeing the beginning of this."

New Communication Links

CompuServe is broadening its communication options with new links for GEOS-based personal digital assistants and extensions for two popular LAN mail systems.

The GEOS interface is aimed at users of the Casio Zoomer and other PDAs that use the GEOS operating system from Geoworks.

CompuServe for GEOS lets users of the pen-based devices have access to news, stock quotes, weather and CompuServe Mail. The mail option includes CompuServe's bridge to other mail services, including the Internet, Lotus cc:Mail, Novell NetWare MHS and various X.400 services.

Users who download the interface from CompuServe are charged **\$10** to their account and given a **\$10** usage credit.

The new network extensions allow access to CompuServe Mail for users who have Microsoft Mail and programs running in Apple's PowerTalk messaging environment.

The extensions will let users with compatible programs exchange messages without interfering with the message's multimedia structure. For example, one Microsoft Mail user can send a message with an OLE object and several attachments to another Microsoft Mail user.

Both extensions feature the same scripting language found in CompuServe Information Manager. The system can be set to send messages at pre-set times or when a specified number of messages are waiting in the program's out-basket.

To download the extensions, type **GO CISOFT**. The charge is **\$5**, offset by a **\$5** usage credit.

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Mail Business Booms

Sales in the CompuServe Electronic Mall set a new record last year, the network said. Although it wouldn't disclose actual sales figures, CompuServe said visits to its online merchants increased 81 percent and orders were up 80 percent with individual sales averaging \$71.

Several new merchants have joined the Electronic Mall. New arrivals this year include Rosenbluth Vacations, Book of the Month Club, Honey Baked Ham, Patagonia, Green Mountain Coffee Roasters, Crutchfield Electronics, SDV Vitamins, Pontiac, L'eggs and Dial-A-Mattress.

CompuServe says it now has more than 135 merchants online.

[Ric Manning writes about computers and technology for *The Courier-Journal* in Louisville, KY, and a weekly column on consumer electronics for the *Gannett News Service*. Ric reads his E-mail at ricman@iglou.com on the Internet, 72715,210 on CompuServe and USJM92A on Prodigy.]

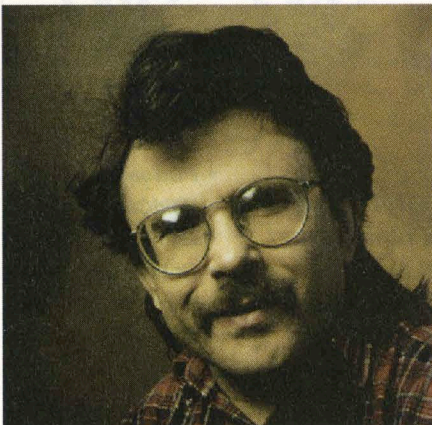
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LOOKING INTO GENIE



by Lenny Bailes

FRONT END MANIA

The last month at GENie has been busy with the premier of a number of new front-end navigation programs for the system. Packages for Macintosh and Windows users have entered a period of beta testing, and GENie Master, the Apple IIe front end for GENie, has been upgraded.

The new versions of the Apple IIe GENie Master are designed to work with AppleWorks 3.0/4.0. A full desktop offline message processor called CoPilot is available for the Apple IIGS. A new upgrade to this package is

also currently undergoing testing.

A fair percentage of GENie power-users are dissatisfied with the new graphic interface for Windows. Complaints are along the lines that the interface is just complicated enough to be beyond the intuitive grasp of new users, but also lacks the off-line options present in PC Aladdin, GENie's older, text-based front end.

The Windows navigator borrows America Online's concept of nested icons for roundtable categories, topics, and messages, but it lacks AOL's easy flexibility. Beta testers report that too many basic mail and response functions must be performed from nested, pull-down menus. It's work to figure out how to save messages, and compose replies. Instead of scrolling back through a message capture buffer, you have to flip through messages one-by-one, or remember a specific message number to jump to. There's no easy way to shift into a basic terminal screen. Users are limited to preset menu options, which are no different than the pointers built into GENie's standard text interface. These pointers cover only a small percentage of the total system. Some

Several music publications, including our, maintain



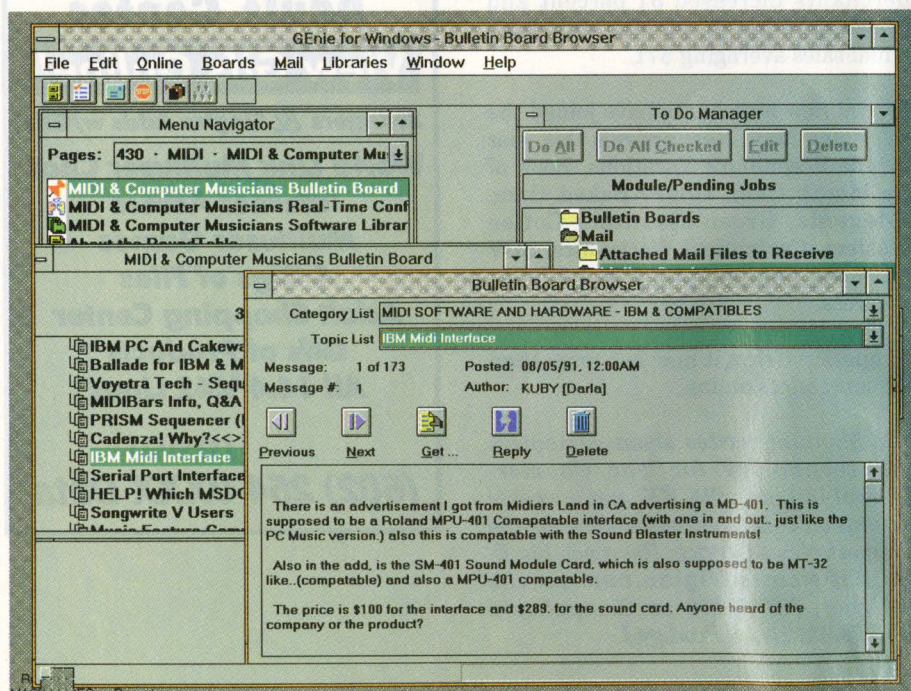
roundtables and features will appear as nested icons, in the front end's windows, but to fully explore GENie, you must still memorize a list of page numbers and feature commands by scrutinizing off-line documentation which is not provided. The Windows software can't be set to remember a visit to a given Roundtable. You must work your way through the official GENie hierarchy each time you log on. Even Prodigy has more fluidity in its navigation options.

In the meantime, other underground front-end movements are afoot: an independently-developed Windows utility called Skirzy allows users to participate in multiple online chat rooms with separate text windows for each session. Members of the OS/2 Roundtable are also currently constructing a multi-windowed OS/2 navigator for GENie.

ROUNDTABLE NEWS

GENie has just finished conducting its annual GENie Faire, an all-day open conference where sysops of various roundtables were available to answer questions, host an online party, and provide information to interested new users.

GENie's Motorcycle RT (Page 1155) is now the official host for Motorcycle Consumer News Magazine. Motorcycle RT participants can now send letters to the editor of MCN and/or post technical and mechanical questions, product complaints and listings for motorcycle events. The second Wednesday of each month is dedicated to a regular Motorcycle Consumer News roundtable chat, where members can communicate with the MCN editors.





Air Warrior (Page 801), GENie's popular, multiplayer combat game, has added a new SuperVGA front end for MS-DOS machines. I tried this out, and it's really impressive. Air Warrior combines the visual and sonic effects of commercial packages like HellCats of the Pacific, and simultaneous online communication with other pilots. Players can choose from hundreds of different aircraft types and battle arenas. The DOS Air Warrior package lets you to capture S-VGA movies of an entire online session. You can play these back at your leisure, offline, to relive your avionic triumphs, or, in my case, to see exactly why you crashed.

GENie's travel conferences continue to provide users with statistics, digital photos, and accounts about various sights and events of interest to tourists all over the country. This month, the American West conference (Page 1065) contains anecdotes about the lore and legends of Humboldt County. Over the Memorial Day weekend in Arcata Cali-



Humboldt Racer

fornia, a 3-day marathon race occurs, somewhat similar to San Francisco's famous Bay to Breakers. From Deadman's Drop, around Point Drizzle to Cock Robin Island, the racers compete, while encased in human and bicycle-powered sculptures, like the Turtle car featured in the accompanying photograph.

The Showbiz and Science Fiction RTs (Pages 185 and 470) on GENie continue to buzz with their customary heavy traffic. By the time you read this, the director of The Stand, a recent TV miniseries based on the Stephen King novel, will have appeared in an open RTC. Stephen King fans will be able to grill the director to their heart's content about production changes in the screen version and possibilities for a sequel. In the Science Fiction RT, fans are debating changes in the annual Hugo awards. A special event this month features Uncle Yog's Online Story Hour. Uncle Yog, (he whose mere name fills followers of H.P. Lovecraft with dread), is in reality, former SFRT Sysop and science fiction writer James

MacDonald. MacDonald will be alternating the online transmission of several Hugo and Nebula award nominee short stories with a new tale of his own, composed specially for the occasion.

MONTHLY SPECIALS

GENie has a formidable array of available online reference services. Although charges of \$2 to \$6 for individual title and keyword searches would discourage me from making extensive use of these features, they are considerably cheaper than access to the same periodical databases through services like LEXIS and NEXUS. Each month, the coordinators of the ARTIST gateway offer a special discount to encourage user participation. During the month of May, GENie offered half-price access to its "Consumer Medicine" database, which includes over 3 million articles on all aspects of human medicine. The GENie system accesses the U.S. National Library of Medicine MEDLINE database.

GENie has continued its ad campaign in the pages of estimable, cyberphilic publications like WIRED, attempting to convince would-be subscribers that it is "not your father's information service." Stay tuned if, like me, you're curious to see what they intend to do to expand upon this assertion.

[Lenny Bailes is a PC consultant, writer and teacher living in the San Francisco Bay Area. He is a contributing editor for Microtimes, a California computing magazine, and co-author of Byte's DOS Programmer's Cookbook.]



TELECONFUSION

JACK IN THE BEAN TUBE - And The Little Tree that Couldn't

by Charles Moore

In my ongoing review of promotional items from many of the big players in this techno-crazy industry, the other day I got one of the most delightful and relevant techno-baubbles yet, from CompuServe - a tree in a tube. The little shrub (Scotch Pine) in its plastic casket looked like it had done the dance with the weed whacker one too many times. Seeing that this twig was indeed in need of some very serious emergency help if it was to survive, I quickly planted it in the ground. I've seen this done and it works wonders not only with trees, but all manner of greenery..

For a week straight I watered the little thing twice a day, I even tried talking to it, (dirt of course). But nothing seemed to work. Then one day, when I was sure the thing was on its last leg, my daughter Jill suggested that

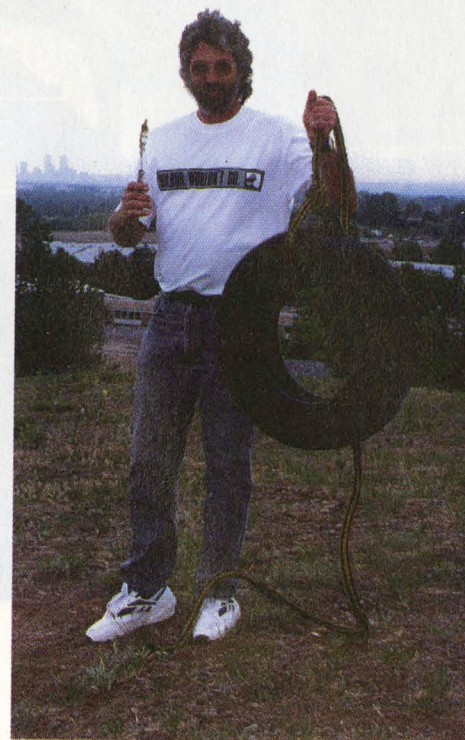
perhaps that plastic tube wasn't really a terrarium at all, but just a piece of packing to be discarded. So I opened it up, extracted the green thing and planted that separately. Not knowing the environmentally correct thing to do with the plastic tube, I fired it into a field behind my house - to let it go free in the wilds of the Colorado high plains.

And then things started to happen. The little tree began to show signs of life, strength, growth, and when it looked like it was healthy enough I knew it was time to put it through a rigorous round of testing that came to me one night in a dream. For my first few experiments once again I enlisted the help of my ever trustworthy 1985 Isuzu Trooper test lab, a vehicle known for its speed and durability, as well as its aerodynamics and stylish good looks.

Being ecologically conscious of things, and seeing how this tree was right along those lines the emissions test

was an obvious choice. Placing the potted end inside the tailpipe of the Isuzu I started the engine and red-lined it. On my first few tries the tree got spat out of the exhaust pipe and fired across the driveway like a little pine-scented bullet. Not to be outsmarted by a shrub, I easily deduced that wedging the thing in sideways would do the trick - it did. And the tree survived the test, albeit a little sooty and limp.

I took the slightly blackened branch and carefully considered whether or not it was up to the next test, but hell if you're going to be a 90s tree you've got to be tough - with the way the environment is going and all. So I carefully laid the little tree in front of the monster Force4 tire of my



With a Tire and a Prayer - Still Waiting

truck. Now I know what you're thinking, but this is all in the name of science. I eased the Isuzu up to the edge of the tree and slowly let the clutch out. the engine bumped and kicked in protest as it tried climbing over the massive branch. No sweat, I dropped it into four-wheel-low and away we went - just like a Jeep commercial.

After peeling the tree out from between my tire treads, it was time for the big test all trees must face sooner or later. The tire swing. Something about trees, kids, and tires make up one of those symbiotic relationships of nature I always marvel at. I popped the tire off the Isuzu and tied one end around the tire and the other end around the tree at just the right spot to gain maximum swing factor. Getting the knot around the tree took a bit of customization - resulting in the loss of most of the needles actually. When everything was fully in place it somehow didn't seem the same as when I was a kid swinging from that big old oak in Grandma's yard, something was missing - something like ...height.

The spindly little green pine was still gripping life when I gave it the Sap



*Naw fella, I ain't seen no Goose.
This is Broomfield anyway. I don't
think you can keep a goose here...*

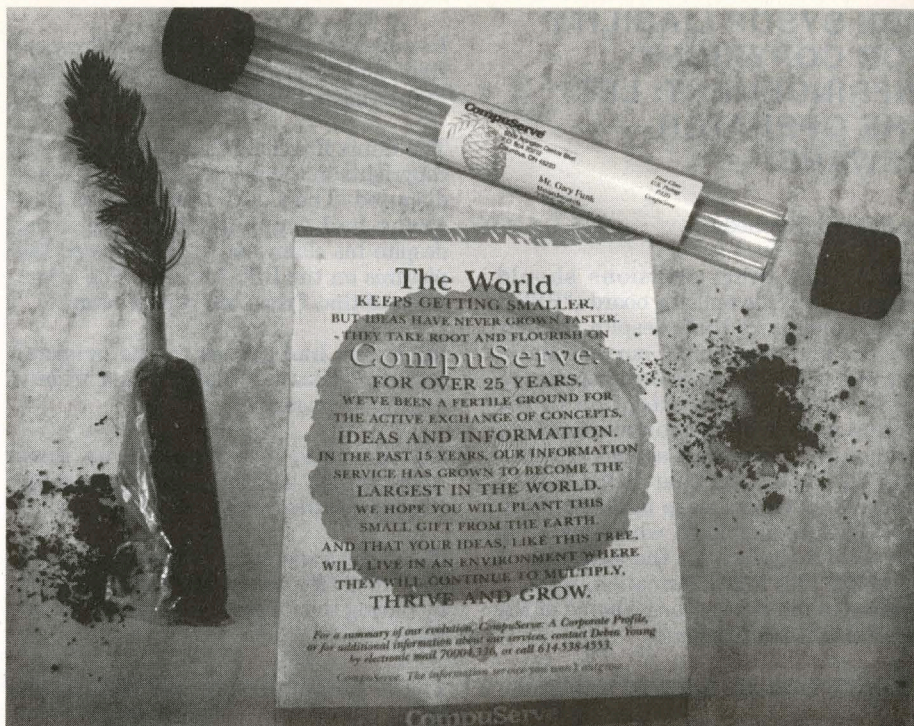
Analysis Test or S.A.T. The sap was of a good clear quality and looked about as good as any sap I've ever seen. It was tacky with just the right amount of adhesion to make it a real pain to scrape off of the paint job of your car. As far as the taste it was much like other sap I've tasted from time to time, a little like honey, a little like maple, and a lot like formaldehyde with a mysterious hint of turpentine.

Now, I'm sorry to say that somewhere during this last test, when a friend mistakenly took the tree for a pipecleaner, it passed on to that big forest in the sky. Incidentally, a couple of bowls of scotch pine won't do anything good for you. I looked at the flattened, sooty, rope burned, sap bled greenish pile laying there on the table and I thought what to do, what to do. I called up a friend and told him to bring some beers over - choking with emotion I blurted something about "I killed it," and needing to "dispose of the body."

My friend showed up with beer in hand and a bewildered look on his face as he studied the little green pile lying there on my living room table. Well, after much discussion, and a few beers, we decided that the little guy deserved a decent send off. So, we put on that really bad recording of Rod Stewart covering "Amazing Grace," and torched the last of it in my Smokey the Bear ashtray, (seemed fitting), and talked in to the night about what a great little tree it had been.

Never having interred a tree before, I didn't know if it fell into the genre of gerbals and goldfish (flushers) or kitties and puppies (back yard). But I gave it the benefit of the doubt, gathered the charred remains of the once brave tree and went to bury them behind my house. As I hopped the fence I was startled to see - you guessed it - a plastic Compu-tube had grown all the way into the clouds. No water. No tender loving care. No talking to it - nothing. Amazing I thought, how life plays these little tricks on us. Start out by trying to make a forest, and end up with nothing but fodder for a landfill and a tube the size of a California redwood... life goes on.

The people who put trees in tubes can be contacted at:
 CompuServe
 5000 Arlington Centre Blvd.
 P.O.Box 20212
 Columbus, OH 43220
 800-621-1253
 sales@cis.compuserve.com




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BBS SYSOP LIABILITY FOR COPYRIGHT INFRINGEMENT: LET THE OPERATOR BEWARE!

by Peter D. Kennedy

Two recent court decisions should remind electronic bulletin board ("BBS") system operators that, despite popular theories and arguments, current statutory and common law is being applied to BBSs without much attention to the unique nature of the communications technology. These legal actions are challenging the notion that BBSs can be unregulated virtual swap meets or unsupervised shopping malls, where the sysop can provide a place for the swapping of computer files and information, without tending to the content or pedigree of the files available on the board.

1. *Playboy Enterprises, Inc. v. Frena*[fn.1]

In December 1993, a federal trial court in Florida decided an important copyright case involving a typical situation faced by many BBS sysops: the unauthorized uploading of copyrighted files by users. The case imposes a high standard of liability on sysops, and should be a reminder that sysops need to pay attention to actual court decisions, not just the latest legal theories bandied about the Net.

George Frena is the sysop of a BBS in Florida called "Techs Warehouse." His BBS carries, among other things, adult material. At the time of the court decision, Frena provided free access to users who purchased products from him, and charged \$25 a month to those who did not. Frena allowed subscribers to upload whatever they wanted onto his BBS, and uploads were apparently immediately available for downloading.

According to the opinion, Techs Warehouse contained among its files 170 copyrighted Playboy and Playgirl pictures. Frena conceded that these pictures were on his BBS, and that he did not have authority from Playboy Enterprises, Inc. ("PEI"), to distribute the pictures. The pictures' file descriptions included the registered trademarks PLAYBOY and PLAYMATE. PEI's text had been removed from these pictures, and Frena's name, "Techs Warehouse BBS," and the BBS's phone number had been added.

According to Frena, he did not post or alter the pictures; the files were all modified and uploaded by users. After PEI sued him, Frena removed the offending files and now monitors his BBS to assure that no more Playboy pictures are uploaded.

In a simple one-two analysis of "ownership" and "copying", the Court held that Frena violated PEI's copyrights.

The Court first held that PEI owned the copyrights in the pictures, which was not disputed. The Court then decided that Frena had "copied" these pictures, despite his claim not to have posted the pictures on the BBS himself. The Court inferred that Frena had copied because

(a) Frena had access to the original pictures, because Playboy is a widely circulated magazine;

(b) the computer file images were "substantially similar" to the copyrighted Playboy pictures; and

(c) the copyright owner's "public distribution" and "display" rights were infringed by having the image files available on the BBS.

The two arguments a typical sysop might think persuasive in this situation were rejected.

First, even if Frena himself did not copy the pictures, the Court said that was irrelevant. The mere presence of the images on his BBS was enough:

There is no dispute that Defendant Frena supplied a product containing unauthorized copies of a copyrighted work. It does not matter that Defendant Frena claims he did not make the copies himself.

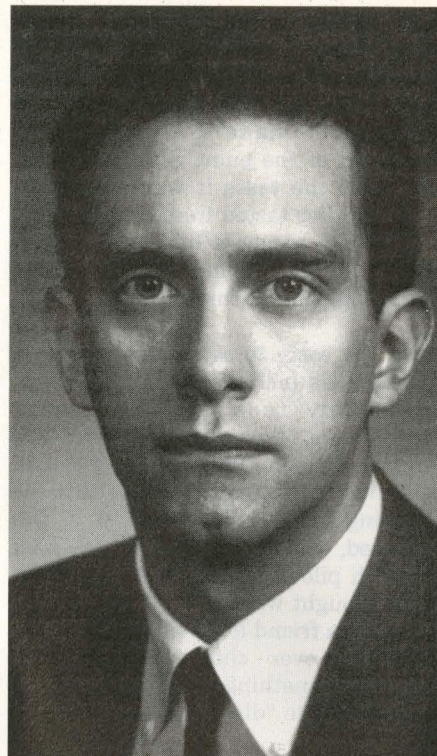
Second, even if Frena did not intend to violate PEI's copyrights, the Court held this too was irrelevant:

It does not matter that Defendant Frena may have been unaware of the copyright infringement. Intent to infringe is not needed to find copyright infringement. ... [E]ven an innocent infringer is liable for infringement ...

Innocent intent only matters when it comes to damages, not liability.

Along with copyright infringement, the Court also held that Frena was liable for trademark infringement, because the offending files contained the PLAYBOY and PLAYMATE registered trademarks. Again, Frena's claim that he did not himself put these words on the images nor post the images was held to be irrelevant. As a final reproof, the Court held that the trademark infringement also made Frena liable for "unfair competition" against PEI. The Court left the question of damages for a later hearing.

The procedural posture of the Frena decision makes this an especially important precedent: the Court was required to



believe Frena's claims, but found him liable anyway.

The Court in Frena has essentially put the burden on BBS sysops (at least those that charge money for access) of reviewing all files on their boards for possible copyright and trademark infringements. Regardless of the sysops' good faith or efforts to remove infringing files, the sysop will be liable for copyright trademark infringement for those files that escape detection.

Several aspects of the Frena decision are open to question and the opinion certainly will not be the last word, especially when a case is decided by a court more attuned to the technology involved.

The Frena court was certainly correct that a person need not intend to infringe, or know he is infringing, to be liable for copyright infringement. In that sense, it is a "strict liability" tort. When applied to computer files actually uploaded by the sysop, this principle is no less fair than when it is applied to non-electronic publishers like newspapers and magazines.

However, one can wonder about the Court's unquestioning application of this principle to files uploaded by users. Are a BBS's file directories similar to paper publications, as the Court assumed without discussing the question, or are they more like a swap meet or shopping mall where the sysop provides the space, and the users provide the goods? Holding a sysop strictly liable for the legal pedigree of every file on the BBS significantly

limits the core innovation of BBSs — free two-directional file transfer.

A newspaper publisher cannot claim not to know what is in the newspaper; the publisher makes the decision what to include and what to leave out. The sysop does not necessarily do this, or know what is on the BBS at any given time. Given the ability to upload and download files without the sysop's knowledge, is it proper to hold the sysop strictly liable for the presence of infringing files? If it is, is it also correct, as the Frena court did, to automatically infer the additional element of copyright infringement — "copying"? Is simply providing the means to swap copyrighted files enough to make a sysop liable for illegal "copying"? Should there be some requirement that the sysop at least know that copyrighted files are being posted and downloaded by users, and made no attempt, or only inadequate attempts, to prevent such activity before a Court finds that he copied the files?

The Court in Frena imposed liability regardless of the sysop's knowledge of what users were doing on his board. Would the Court have reached the same conclusion so easily if Frena had been the owner of a shopping mall leasing space to a tenant who was (without his knowledge) selling Metallica T-shirt rip-offs?

The Court also appeared to misunderstand the nature of a BBS when it held that the availability of the image files violated the "display" right aspect of a copyright. The Court apparently believed the images were actually displayed to the user, a capability that is only offered by some BBSs, and is further limited by the user's communication software. Of course, the "public distribution" aspect of a copyright can still be violated by the distribution of a computer file containing an image, and so this error has no meaningful effect on the outcome.

Finally, toward the end of its opinion, the Court seemed to lose track of Frena's claim that he did not upload the images, erase PEI's text, or add the BBS's name and phone number himself — a claim the Court legally had to accept at that stage in the proceedings. It is not clear whether Frena unequivocally stated that he did not know the Playboy pictures were on his BBS before he was sued. However, the Court went a step further, stating that Frena himself deleted PEI's text from the Playboy pictures, "add[ed] his own text" and "appropriat[ed] PEI's photographs without attribution," even though Frena denied having done so. The Court's assumption of disputed facts in PEI's favor, while questionable, might actually limit the impact of the opinion as precedent, because if Frena had, in fact, done those things himself there would be little question of his liability.

These problems with the Frena opinion demonstrate that the courts continue to struggle to understand computer communication technology. The natural tendency of the law is to make square pegs fit round holes until someone persuasively explains the difference. For example, judging from the Court's opinion, Frena's lawyers spent substantial energy making an obviously weak, losing defense that making copyrighted Playboy pictures available for download on a commercial BBS was a "fair use" of those pictures exempt from copyright law. The effort would better have been spent explaining the unique nature of BBSs to the judge, and the unique problems facing sysops in patrolling for copyright infringement.

2. Sega Enterprises Ltd. v. Maphia^[fn.2]

A second case, decided by a federal trial court in California in March, relied on Frena in finding that another sysop had violated federal copyright, trademark and unfair competition laws.

The facts, as found by the Court after an evidentiary hearing, were far less sympathetic than those in Frena. The users of a BBS called "Maphia" were uploading and downloading copies of copyrighted Sega computer video games. The directory descriptions of the game files identified them as Sega games. The Court specifically found that Maphia's sysop knew that the games were being copied, and that he actually solicited Sega games for uploading. Despite the sysop's denials, the Court also found that the Maphia BBS received both direct and indirect monetary benefits from the uploading and downloading of the game files — through subscription fees, free download privileges, and an increased market for other goods or services sold by the sysop.

Worse yet, the operators of the Maphia board were selling electronic devices designed and used to copy the ROM programs from Sega video game cartridges onto standard hard drives or floppy disks. Buying a such a copier from Maphia entitled the buyer to 10 megabytes of free downloads of Sega or SuperNintendo games.

There was no evidence that the sysops of Maphia were themselves posting the Sega games, but the Court found that the sysops knew the games were there, knew they were being uploaded and downloaded, and encouraged and rewarded the process — therefore making them liable as "contributory copyright" infringers, or "[o]ne who, with knowledge of the infringing activity, induces, causes or materially contributes to the infringing conduct of another." Although the Court referred to the Frena case for this rule, one wonders whether the Frena case

would have come out the same had the Court in that case applied the "contributory copyright" rule.

It is important to note that both the Frena and Maphia cases were brought by large private corporations, not law enforcement authorities. Such companies have the resources to conduct detailed investigations and hire powerful, competent lawyers. The power of the civil lawsuit is especially notable in Maphia, where Sega not only obtained an ex-parte preliminary injunction restraining the operation of the Maphia BBS, but also got an ex-parte seizure order — essentially a civil search warrant. Without having to notify Maphia's sysops, let alone their lawyer (if they had one), and without having to get a law enforcement agency interested in their case, Sega got a court order authorizing the seizure and copying of the entire Maphia BBS.

While the Maphia sysops raised a feeble challenge to the seizure order, it was rejected. The full scope of such civil seizure orders when applied to BBSs has not been explored, and if poorly drafted or executed they may raise questions under the Electronic Communications Privacy Act, the Privacy Protection Act of 1980, the Fourth Amendment or state law. However, no sysop should count on such after-the-fact remedies; just like criminal cases, if infringing material is found, courts will bend over backward to uphold the seizure.

CONCLUSION

The Frena and Maphia decisions, while serious, do not mean sysops should play Russian Roulette and just not bother reviewing files at all, or close off BBSs to uploads. A sysop's good faith will go a long way in two very practical areas. First, a good faith, regular and documented effort to review and eliminate infringing files will make a BBS a far less attractive target for prosecution or a civil lawsuit, even if a copyrighted file unknowingly slips by. Second, the damages in a civil action are lower for the innocent infringer.

The safest practice is to make uploads unavailable for downloading until the files have been individually reviewed for copyright and trademark violations. If this is impossible, new uploads should be screened regularly, offending files deleted, and records of the screening process kept. Even so, with the current state of the law, there is no guarantee that screening will prevent any liability, but it will surely reduce the risk.

Footnotes:

1. 22 Media Law Rep. 1301 (M.D. Fla. Dec. 9, 1993).
2. Opinion available on Westlaw at 1994 WL 132215 (N.D. Cal. March 3, 1994).

STEVE JACKSON GAMES v. UNITED STATES SECRET SERVICE:

GOVERNMENT DROPS ITS APPEAL; PLAINTIFFS PRESS FORWARD ON "INTERCEPTION" ISSUE

Earlier issues of Boardwatch reported on the lawsuit brought by the Austin, Texas role-playing game publisher, Steve Jackson Games, against the U.S. Secret Service for violating the company's civil rights and the privacy rights of its electronic bulletin board system's users. Armed with bare suspicion and a search warrant based on largely inaccurate information, the Secret Service on March 1, 1990 raided the company's offices, seizing its BBS and two other computers, hundreds of floppies, drafts of a soon-to-be released game book, and volumes of other computer records and documents. No one was ever arrested or charged, but the Secret Service kept the BBS and other materials for almost four months.

Three years later, the Secret Service found itself in federal court, not prosecuting anyone at Steve Jackson Games, but instead trying to defend its raid against a civil lawsuit brought by the company, its owner Steve Jackson, and three outside users of the company's BBS. After a three-day trial, Judge Sam Sparks held that the Secret Service's seizure of the draft game books and the BBS violated the Privacy Protection Act of 1980, and that its seizure, without probable cause, of the BBS e-mail violated a provision of the Electronic Communications Privacy Act of 1986, 18 U.S.C. 2703. The Secret Service was ordered to pay \$1,000 to each of the users of the BBS, and over \$50,000 to Steve Jackson Games to compensate for damaged equipment and lost sales. The government also agreed to reimburse over \$250,000 in costs and attorneys' fees incurred by the company in bringing the lawsuit.

The Secret Service initially gave notice of its intent to appeal the judgment, but by January, 1994, had changed its mind. The appeal was dismissed, and the government has now paid a total of over \$300,000 to the Plaintiffs. This is the first and only known recovery of money from the federal government for violating the civil liberties and privacy of computer users.

The Plaintiffs' victory was not complete, however. Judge Sparks rejected their

argument that the Secret Service had violated yet another law when it seized the BBS — the Wiretap Act, as amended by the Electronic Communications Privacy Act of 1986 (the "ECPA"). Congress expanded the Wiretap Act in 1986 to include protection for all types of electronic communications, including electronic mail and private bulletin board communications. The Wiretap Act prohibits interception of electronic communications without a court order, a greater burden than obtaining a simple search warrant from a federal or local magistrate or judge.

When the Secret Service seized the Steve Jackson Games BBS, it contained undelivered electronic mail — that is, mail written by a user and addressed to another user, but not yet read by the intended recipient. When the Secret Service seized the BBS, and then later read and deleted all the e-mail on that BBS, this mail lost its privacy, and was prevented from being delivered.

The government argued that the seizure of mail in transit was not an "interception" under the Wiretap Act because the e-mail was temporarily stored on the hard drive of the computer. Judge Sparks agreed, although the Plaintiffs argued that walking off with mail in transit and preventing it from being delivered sure seems like an interception. Judge Sparks' decision has in effect added an additional requirement to the definition of interception — that an "interception" must be contemporaneous to its transmission, and therefore the seizure of a storage device can never qualify as an interception.

The word "contemporaneous" does not appear in the Wiretap Act and the Plaintiffs have argued that the legislative history of the Electronic Communications Privacy Act, as well as the language and logic of the act, indicates that seizures of BBSs that include undelivered e-mail are "interceptions" of such communications requiring court orders.

The government has responded by arguing that the ECPA establishes two separate, airtight compartments — one for "stored" electronic communications resident on hard drives, no matter how temporarily, and communications that are in-transit, that is, where the electrons are moving from computer to computer. Under the government's theory, BBS or Internet e-mail changes legal status, and therefore the level of protection, as it moves from computer to computer on its way to its destination.

This issue remains important despite Judge Sparks' other ruling that the Secret Service's seizure of all the e-mail violated another provision of the Electronic Communications Privacy Act. At

least some law enforcement agencies appear to be interpreting Judge Sparks' decision as a "go ahead and seize, but don't read or delete, and try to return promptly" rule; that is, that the law permits them to seize electronic mail without probable cause, as long as they do not read or delete it. Although this is not an accurate reading of Judge Sparks' ruling, a clear decision that the seizure of in-transit e-mail would unambiguously protect not just the privacy of e-mail, but would protect the delivery of the mail as well. Other methods, including subpoenas and making on-site duplicates, can preserve the government's need for information when legitimate and supported by probable cause.

Further, the ruling exhibits a static application of the statute to technology, not intended by Congress when the ECPA was enacted. The Plaintiffs have pressed forward with their appeal in order to establish better protection for electronic communication privacy. The government and law must come to grips with the proliferation of privately owned and operated communications systems. While single-line dial-up BBSs are now relatively primitive, there are countless thousands of them. The large commercial services such as CompuServe and America Online are growing at fantastic rates; Steve Jackson Games' own BBS has become a commercial Internet machine with a T-1 line and over a dozen dial-up connections, providing ftp, telnet, newsgroup and e-mail services. It is not unreasonable to ask the government to give new means of communications the same respect as it has long granted telephone calls. With the much-vaunted information superhighway coming, the government will face these problems anyway. Private communications increasingly will travel over privately owned, small, decentralized service providers, and the government cannot continue to argue that the difference in technology (or size) warrants lower protection under the law.

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LOST IN SPACE

by Brian Gallagher

It was shortly after breakfast when the troops of the 101st Airborne were called to set-up a five mile perimeter encircling a desert area in southern Nevada. Staff Sergeant Phil Intravia watched men with suits and sunglasses, (presumably FBI or CIA), driving big, black shiny cars flowing porously in and out of the perimeter. From time to time the troops of the 101st experienced various difficulties with their equipment - radio transmissions became garbled, Jeep headlights periodically dimmed for no apparent reason, engines running fine only moments before, suddenly acted as if they were hopelessly out of tune.

Late in the evening of the second day, the shiny black cars began to stream out all at once in a silent parade more reminiscent of a funeral procession than an official government operation. Before the exhaust of the departing entourage had dissipated in the hot air, the vehicles of the 101st started acting up once again. Headlights dimmed to the illumination of a single candle, engines growled and choked in protest at an unforeseeable foe, radio communications ceased entirely, with soldiers not even being able to contact the other side of the perimeter.

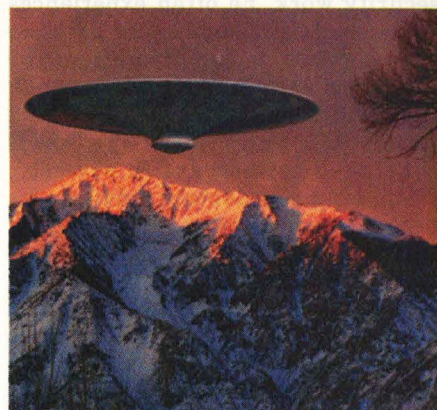
In the midst of this phantasmagoria of errors a fiery orangish blue reflection, but more than a reflection - seemed to rise and hover just above the treetops from within the perimeter. The object floated as if held there by necromancy, without sound or odor. Suddenly, as if it had just made up its mind to do so, it took off at a 45 degree angle "faster than anything I've ever seen."

Phil Intravia relates this incident, which occurred over 20 years ago, as if it were yesterday. He recalls the debriefing the following day by individuals he describes as "upper echelon brass" - "They told us we were never in the area, never had orders to go to the area, and that basically we didn't do anything for the last two days and that is what the records were going to show - this never happened." The words echo through his mind but fall on deaf ears, because it did happen, and it is still happening today and he is damn sure going to let the world know about it.

"The government is trying to play this down - still! It makes them look ridiculous," he says emphatically. "There is too much physical evidence to deny it any longer - it's absurd." Referring to evidence, he notes some 2,300 files about U.F.O. phenomenon, to his knowledge, the largest online collection in the world, available on his U.F.O. BBS, (408)847-7910, in Gilroy, California.

The board is free - for everything. "My whole idea is to get it out and into the public - I'm not out to make money. I just want to get the information available." With an estimated 26,000 sightings reported every year in the United States alone, Intravia spends an average of six to seven hours a day just entering information onto his BBS. By far the majority of the information he posts on the board comes from Europe via a satellite uplink using Packet Radio technology.

Sending files this way works much like downloading from a BBS, only instead of a modem, HAM radio operators use a device known as a TNC - very similar to a modem in appearance and function only the information travels over radio waves rather than telephone lines. The TNC is situated between the transceiver and the computer and uses a protocol known as 7plus, to filter erroneous characters from the transmitted data. And yes - there are HAM radio boards out there that are very much like traditional computer

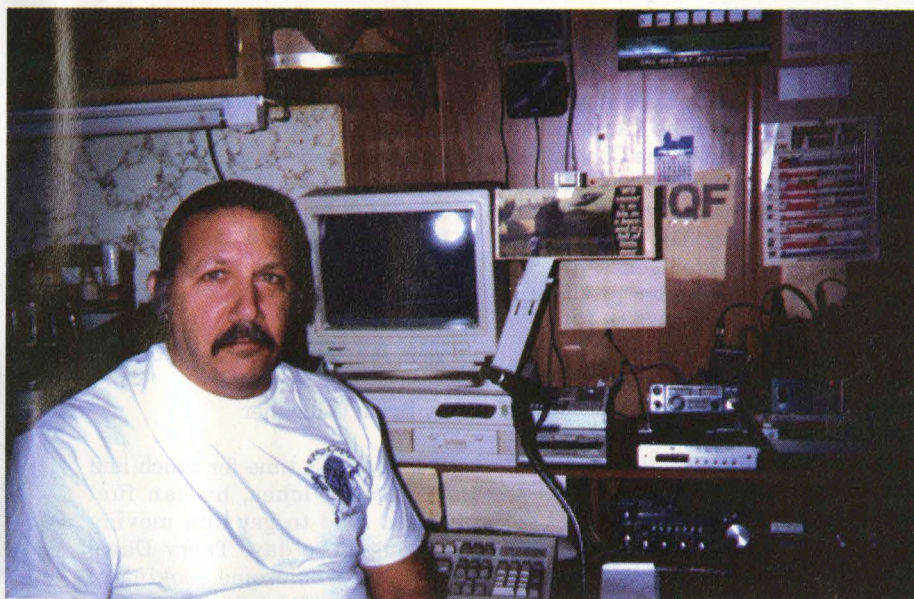


FaberWare of the Air

bulletin boards. In fact, it was HAM radio that first got Intravia into BBSing.

After leaving the Army in 1972, Intravia entered law enforcement as a deputy sheriff for San Benito County until 1975, and worked as an EMT and ambulance driver from 1974 to 1976. From 1976 until 1986 he ran his own security company before selling it. The reason for his leaving the sheriff's department, the EMT position, and finally selling his security company is a neurological disorder he was born with.

The disease he described as a malformed left arterial artery which instead of running straight up to his brain as it should, curled around in a C-shape resting on a bundle of nerves including the nerve connected to his



Phil Intravia with his Packet Radio Equipment and the UFO BBS

inner ear. When his blood pressure rises or his adrenaline gets going, such is prone to happen in police, rescue and security work, he often experiences dizzy spells and sometimes gets the shakes. While he has experienced the symptoms since he was 10 years old, the condition was never diagnosed until 1984 when, after the spells continued to increase in severity, (following his doctors advice), he decided to take permanent medical retirement.

To avoid the doldrums of retirement, with the help of a friend he turned to HAM radio to occupy his time. Upon entering the world of HAM radio, Intravia purchased his first "decent" computer, which he used to transfer the packet files mentioned earlier and to call his first BBS. It was at the beginning of his retirement in 1987, using HAM radio and packet radio file transfers, Intravia really started to amass files about U.F.O.s in large quantities.

When he first started gathering files he wanted to verify everything to be sure it was authentic. In view of his own experience and the reams of information involved in tracking U.F.O. sightings worldwide, he has since adopted a somewhat more relaxed stance on which files he allows to be posted. "I leave an open mind on the whole thing," he said, "but if it's absolutely absurd - I delete it."

Some of the "hottest" files to be found on the U.F.O. BBS can be found by doing a search with either the key word "Lazar" or "Cooper." Robert Lazar, is a physicist who is said to have been called in by the government to analyze the propulsion system of an alien craft purportedly kept at an unofficial air base known as "Area 51" in southwestern Nevada. The Cooper files contain information that Melton William Cooper, purportedly gleaned from classified Navy files while serving a member of the Intelligence Briefing Team of the Commander in Chief of the Pacific Fleet from 1970 to 1973.

I took a quick look at the Lazar file 1768.ufo, and the Cooper file 1922.ufo and was amazed at the detail - dates, body counts, propulsion systems, human body parts found in wrecked alien crafts, a whole string of CIA and government secret operations and code names, nine alien craft in disguised hangars in Nevada, and even a live alien named EBE, for Extraterrestrial Biological Entity, who was a chloro-

phyll based life form, much like a plant and died in mid 1952.

For those wanting the more "solid" account of U.F.O. information, Intravia recommends looking in the "C" file area of the board, as many of these files are government documents obtained through various sources including the Freedom of Information Act. However, browsers will also notice a plethora of files that look more like headlines from a gossip magazine, such as: "Alien Beacon Found in Statue of Liberty," "Three U.F.O. Aliens are found on Mt. Everest," "Space Aliens Build Military Base on Moon," "I was Raped by a Space Alien," and the ever popular, "Space Aliens Hang Out at Nevada Bar." Que sara sara.

The board also has a large assortment of .GIF and .PCX images some with text. When browsing the images I found I had already seen many on television shows before, but the image **UFO-1.gif** was new to me and rather striking. What you will not find on this Spartan board are "typical" BBS files: shareware, freeware, games and the like. In fact the only thing you will find are files directly relating to the U.F.O. phenomenon. "I don't want to veer off into the standard bulletin board garbage," Intravia said, "There are plenty of good boards out there that provide that already - I just don't see that it is needed."

He is pretty clear about what he thinks is needed, however, to get the word out and to get the government to fess up. "It's beyond do they exist," he said, "Now the question is 'Why are they here?'" For more information or to report an out of this world experience contact Intravia either through his BBS, through HAM radio, his amateur address is: "AA4RE-2" or write to him via snail mail: The U.F.O. BBS, attn: Phil Intravia, 11475 New Ave., Gilroy, CA 95080.

WHAT'S COOKING?

by Brian Gallagher

When it's time for lunch and sandwiches, human fuel called food to get him moving through the day, Terry Dawe eats the wholesome cooking of Kay, his wife of 20 years. But when it comes time for a meal fit

for royalty, a true culinary masterpiece, clad in an apron and using the refrigerator for his palette - Dawe sculpts a smorgasbord of palate pleasing delights with recipes that often date back to the mid 1800s. And thanks to his one line bulletin board, **The Chef BBS, (810)765-2966**, (which is of course located in his kitchen), you can try this wealth of recipes too.

The 125 to 150 recipes Dawe currently has online come from a variety of sources - some from one of his over 200 cook books, some from friends or users, some from family recipes, still others from Visiting Chefs of the Month, with about 25 percent of the recipes his own creations. Not to worry about running across unpalatable dishes, the 6'5" 238 lb. Dawe tests every recipe in his kitchen before it makes it onto his board.

Dawe's qualifications to run The Chef, located in Marine City, Michigan, on the banks of the Sinclair River, between Lake Huron and Lake Sinclair - called blue water country for just that, come from the kudos of those who have feasted on his "Chicken Crunch" or "T's Fettuccine with Seafood Primavera." A fan of Graham Kerr's, "Galloping Gourmet" television show, he began cooking in earnest some 15 years ago after taking a class at a local church in cooking Chinese food. He liked the class so much he took another course, and another and pretty soon was hooked. Today he is the author of "The Chef of Police," a cook book to be published this fall.



Terry Dawe - "Chef" of Police

Yes...of "Police." As a matter of fact that's what the BBS was called for the first 14 months of its relatively short existence. Dawe went public with his board in March of 1994 and dropped "Police" from the title when he did so because "A lot of people don't like police," he said. Whether or not "Police" is in the title of the board or not, it is still in Dawe. For 12 years he served as a New Haven, Michigan police officer, before working a three year stint as a certified financial planner from 1987 to 1990.

When the stock market crashed late in 1990 "so did I," he said and it was back to the force again. He works part-time for the Yale Police Department, (to keep his state certification) and full-time as a civilian Police Officer for the U.S. Department of Defense at the Selfridge Air National Guard Base, the largest reserve training base in the world. For the last year he has been selling Tupperware and hopes to make it available on his board in the near future, and he is attending the Macomb Community College where he is working towards a degree in Culinary Arts. In his spare time (?) he can be found, in the kitchen working on creations or on his bulletin board.

Computers were a source of fascination for Dawe from the very first time he laid fingers to a keyboard, way back to the days when his first computer, the Texas Instruments 4A, was really something. Working for the insurance company further whetted his appetite for the power of computing where he used an IBM 8088 laptop PC Convertible. It wasn't until he and his wife sold some property in early 1992 that Dawe first entered the online world in a big way.

With the sale of the property, through mutual agreement, she got the swimming pool she wanted and he got the Dell 486 he wanted - just because it was a hobby he enjoyed. Shortly after purchasing his new machine Dawe ran across a copy of Boardwatch Magazine and was intrigued by the list of BBSs from all over the country. He bought the magazine and within a week was downloading all sorts of different BBS software programs to test them out. At first it was rather rough for him, "I'm not a computer genius by any means," he said, and it took him a little while to get the programs running as "I had no concept of what PKZip was." When he did get the files unzipped, up and running, he settled on Mustang's

Wildcat!, a choice he says he has never regretted even once.

Dawe can't say enough about the help he received from Mustang's technical support personnel, particularly Debi Fryatt, whom he says "bent over backwards" to help him. The board has auto-generated RIP graphics, but most all callers call in with ANSI emulation. The menus are clear and precise and grouped together in a way that makes sense. Recipes are categorized by the type of food: 1) Cakes, Cookies, Pies, Candies 2) Main Course 3) Salads and Dressings 4) Muffins, Buns, Bread 5) Drinks of all kinds 6) Seafood Courses 7) Side dishes 8) Sauces, Dips, Solutions.

From the bulletin menu one can choose varied information including, Handy Cooking Tips, providing helpful hints around the kitchen - like how to prevent fat from splattering when you are frying - (sprinkle salt in the skillet first); and how to shell nuts so they come out whole - (soak them in salt water overnight). There is more valuable information to be found in All About Spices - containing information not only about which foods and preparations a particular herb or spice goes best with, but also its history, such as did you know that the spice "Angelica" or "Garden of Angelica" was thought to have protected entire villages from the plague in medieval times?

One of the highlights of the BBS are the Visiting Chefs of the month, who are all certified chefs and post their favorite recipes for people to devour. A noted Chef for the month of July will be Dawe's mentor, Graham Kerr, who will post three chicken recipes to be featured in an August PBS television special titled "A Tale of Three Chickens." In addition Dawe also posts his favorite recipe of the month. Dishes to be featured in the Recipe of the Month include: Seafood Primavera, Olde English Roast Beef Dinner with Yorkshire Pudding, (a Dawe family recipe the English Statesman Sir Winston Churchill may well have enjoyed, who is related to Dawe four times removed on the Spencer side) Lasagna, Chinese Honey Garlic Ribs and an award winning recipe for Mexican Botanos - like nachos but so much better.

Among his other 8200 files, The Chef has games, small business programs, accounting programs, various Word Perfect clip art files, a slew of TrueType fonts, an assortment of WAV

(sound) files mostly from Star Trek (the original), and a list of BBSs in his 313 area code and a national list of BBSs.

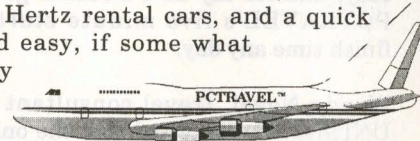
New users may log in twice for an hour each time to see if they like what they see. If they do, Dawe charges \$1 per month for access, all of which goes back into the board and allows subscribers an hour a day with unlimited downloads. Those interested in adding their favorite recipe to Dawe's database can upload it to him as mail on his board or they can mail it to him: The Chef BBS, attn: Terry Dawe, P.O.Box 293, Marine City, MI 48039. Finally something online everyone can really sink their teeth into.

FLYING WITH YOUR MODEM

by Brian Gallagher

Getting from here to there by modem just got easier. Thanks to American Travel Corporation's **PCTRAVEL**, (919)831-4848, flight reservation and ticketing BBS, callers can purchase airline tickets through their computer at a competitive price and receive the tickets the next day via Federal Express, without having to belong to a major online service.

Going online for the first time in April 1994, the service offers a choice from over 250 airlines worldwide, discounts on Hertz rental cars, and a quick and easy, if some what ugly



interface. The neo-Sparta layout of the this bare bones board looks more like a system still in beta-test, (a GUI is promised later this summer), but the performance of this system is significantly more impressive.

If you just want to get an idea of what a ticket should cost - after filling out your name, skip the personal profile section and go directly to the main menu by pressing escape (Esc). From here you will be able to pick and choose destinations, airlines, seat classes, times, dates the works. In addition, callers also have the opportunity of typing in 40 characters for special instructions to the carrier, such as unattended minor, or diabetic. After all travel arrangements are made the program will display the price of tickets including airport taxes.

The extensive personal profile, (which only has to be done once), including seating preferences, smoking/non-smoking, window/aisle, and dietary preferences or restrictions, takes around ten minutes to complete and includes a credit card number - American Express, Master Card, Visa, Discover, and Diner's Club are accepted. If you do complete the personal profile, when you make a ticket selection your card will be billed while you are still online, and your flight reservations will be made for the airline of your choice.

Callers are limited to purchasing tickets for up to four people at a time, and can make a total of up to nine reservations in advance. While the program automatically searches for the best fare if so desired, to ensure the best deal callers are recommended to make reservations 14 days in advance for national flights, and 21 days for international.

I booked a round trip flight from Denver to Atlanta, corresponding to the ONE BBSCON show dates from August 17 - August 21, with PCTRAVEL's best fare arriving at **\$275**. Trying these same booking arrangements with American Airlines' EAASY SABRE, and with UNIGLOBE Precise Travel, (a travel agency down the hall), I landed a price of **\$270** from each of them. However, I found the EAASY SABRE system to be anything but easy, and for my **\$5** I'd rather go for PCTRAVEL's five minute start to finish time any day.

Wendy Nagel, travel consultant for UNIGLOBE, suggested that the online service may not be able to offer the special deals and incentives that often come up in the ever volatile airline industry. For instance, she found that making the same trip on specified dates in July would cost **\$190** for round trip airfare; after checking these same dates on PCTRAVEL, the price came to **\$205**. And the PCTRAVEL main menu does have a bargain area for the latest deals.

In addition to flight reservations, the BBS also offers tours and cruises through GOODBUY Vacations, (800)948-1212; for these services, however, a voice number is provided as these reservations are not at this time done online.

PCTRAVEL is an outgrowth of American Travel's year and a half old A



Cave Drawing lechugia.gif

KENTUCKY EXPLORER

by Brian Gallagher

Where warm winds caress plush tobacco fields and down home blue grass music carouses lazily through the thick air, and spectators view the world's most famous horse race while sipping Mint Juleps comes this month's featured list. In this stolid southern atmosphere one man, Sysop and multiple list keeper, Jon Hagee, of the GT Power based **Kentucky Explorer BBS, (606)271-1451**, is keeping online Kentuckians in the winner's circle with not one, not two, but nine lists for hungry enthusiasts to peruse. For our readers we've chosen his central Kentucky, 606 area code list, in the heart of horse racing country.

The **92** systems he tracks on the 606 list are updated monthly, and is steadily growing in number as newbies find their way into the online realm. Some of the other lists he maintains include Internet Media sites, National Caving BBSs, National GT Power based systems, Internet access BBSs, and Internet MUD systems. Lists are available on the Explorer to first-time callers. To get a list, go to the bulletin menu and choose option "3," from there simply enter the corresponding number of the list you would like. While you are browsing the list, capture the screens as you view them.

Ticket 2Fly 800 service, advertising in approximately 500 Yellow Pages throughout the nation. In April of 1994 A Ticket 2Fly posted sales in excess of **\$2 million**. This explosive growth prompted company owner, George Newsom, to look for other marketing avenues, which he found in the online world at ONE BBSCON in Colorado Springs last year. The company has high hopes, David Lea, marketing consultant for PCTRAVEL said, "Over time, we expect the online service to exceed the telephone service...two or three years."

After attending the show, work began on an in-house BBS software program to interface with the airlines' Apollo reservation system. PCTRAVEL currently has 15 19.2 kbps lines, and you should be able to telnet to them at **pctravel.com** by July 1. When making reservations keep in mind that while most tickets can be cancelled or changed, there may be charges for doing so.

PCTRAVEL, the cheapest way to fly - not really, the easiest way to fly - very possibly. For more information call David Lea, (800)831-3899, or write to: PCTRAVEL, attn: David Lea, 150 Fayetteville Street Mall, Suite 1330, Raleigh, NC, 27601.

On the 606 list 60 percent of the BBSs are running 14.4 kbps modems, with only Perry Alexander's **InfoStation**, (606)269-7128, running a V.FC 28.8 kbps modem. The similarities between these BBSs end right here. Unlike many other lists, there is no predominant BBS software platform, (though GT Power is represented rather strongly with 16 systems), the remaining boards are a wide ranging hodge-podge of programs old, new and obscure. So, for those running Tri-BBS, AmiExpress, Virtual BBS, Renegade, CNet, Spitfire, MAXIMUS or other similar systems who wish to look at what others are doing with them, or those wishing to see what these systems look and work like - take a close look at this list.

Hagee inherited the list keeper position after the last list-guru moved on several years ago. He is looking to add a description area to the list so that those who call will have an idea of just what kind of a board it is that they are calling. "I hate calling a board and not knowing anything about it," he said.

While BBSing is one of his favorite pastimes, cave exploring, (caving), is the love of his life next to his two children, Elizabeth, 9, and Joshua, 4 1/2, and wife Tina. It is through caving that the Kentucky Explorer got the "Explorer" part of its name. Doing a search with the keyword "cave" will produce a seemingly endless stream of files about caves and caving including .gif image files, rescue tips and information, descriptive text of various caves and a slew of shareware mapping programs.

In addition to the mountains of information about caving, the Explorer also offers information on genealogy, science and computer network support. Co-sysops Carole Palmer and Greg Satterfield assist in these areas with Palmer keeping a close eye on the genealogy area and Satterfield being the tech-whiz. Satterfield also does much of the usual maintenance of the board's 400 megabytes of files and helps in keeping up with the 100 plus echoes the Explorer carries, including several that it sponsors.

For those with a political/social bend, the board carries daily summaries of the Rush Limbaugh show. If after reading a summary an individual is inclined to respond to their elected officials - thanks to the League of Women Voters, the contact information for the President and every Kentucky elected

official, from legislative members in the House and Senate in Washington D.C., to the smallest local politician is at their fingertips. And of course, if the politicos don't listen so well there is always that list of Internet Media addresses. While the Internet Media list is available, the only Internet function the Explorer carries at this time is e-mail. But, Hagee hopes to change that by the end of this year by adding full Internet capabilities including ftp and telnet.

Hagee stresses that the prompt and friendly service callers receive when in need of support from one of the Explorer's sysops is an integral part of what makes his board work. "We try to be friendly and helpful," Hagee said, "any reasonable request we do our best to carry through." With this attitude and the combined knowledge of the sysops, Kentuckians have a true thoroughbred BBS in this GT Power board.

Explorer memberships can be had for **\$18 to \$36** annually depending on access desired. For more information about the Kentucky Explorer, or to add your BBS to one of his lists, leave a message on the BBS, or e-mail Hagee at mclhagee@ukcc.uky.edu.

TONS O' TUNES BY TELNET

by Brian Gallagher

As more businesses try to find their niche in the world online, they might well take example from a service that has been around since May of 1990 on a different kind of growth curve. Ken Lovett's **Compact Disc Connection**, (408)985-8982, first went online with **32,000** CDs of varying musical genres, and has been providing users with good music at a good price ever since.

Today, CDC carries over **80,000** CDs, (with an on-hand inventory totalling zero), and has just added a T-1 Internet connection which you can telnet to at cdconnection.com or **199.35.15.2**. The service is adding approximately **1,000** new CDs every month. While Lovett wouldn't give out any firm numbers on how many CDs he is moving he assures "business is great."

The system originally started on 3 PC's running a software program Lovett wrote himself, but has since grown to some 16 PCs. Six of his

machines will accept either modem or Internet connections, with the remaining nine solely dedicated to the Internet as he interestingly enough does more business over the Internet than through the phone lines.

While the screen display of this online warehouse is rather Vulcan, the system remains attractive with its enormous inventory, value pricing and an engaging search engine. The real value here is the immense selection, but we decided to do a little comparison shopping to check prices as well. We looked up the Billboard Top 10 selling CDs and chose eight for differing musical tastes - rock, pop, country, jazz, etc.. We then went to a local shopping mall and compared the prices from CDC to Musicland and Disc Jockey.

In every case the CDC price was lower, except where the mall stores were having a sale on a particular CD. Overall, buyers will pay 85 percent of what they would pay at Musicland, and 88 percent of what they would pay at Disc Jockey. Each of these mall stores carried an inventory of 15,000 to 20,000 discs according to their respective assistant managers. Seeing that CDC doesn't have nearly the overhead that a mall store does, and that it doesn't need to really stock all the 80,000 titles it lists, it is not surprising that it can offer substantial savings and a wider selection to those with an ear for music.

There is however, a \$3.50 shipping and handling charge for each order received in the 48 contiguous states, but it is not limited to the number of CDs in the order. We ordered the soundtrack to the movie "Lonesome Dove," and received it in less than a week. For orders of \$100 or more there is no shipping charge. Payment can be made online using Master Card or Visa.

The service incorporates a very formidable search engine which can search for a title seven different ways and wastes no time in doing so. And if there is a song, CD, or sound track that you've always wanted but haven't been able to find - this is a great place to look. In addition to all of the major recording labels, CDC also carries 2,000 independent labels - often hard to find goods.

Ken Lovett, Compact Disc Connection, 1030 E. El Camino #322, Sunnyvale, CA 94087; (408) 985-7905 voice.

Kentucky Area Code 606 BBS Listing

May, 1994

Provided courtesy of Jon Hagee
The Kentucky Explorer BBS (606)271-1451
Lexington, Kentucky

TITLE	TELEPHONE	SOFTWARE	SPEED	SYSOP
Action Center	(606)331-9590	GT Power.	300-14.4	Chad Longbons
AdventureComm	(606)273-8785	PC Board	300-14.4	Charles Baldridge
AdventureLand I	(606)273-5126	Tri-BBS	300-14.4	Doug Rogers
American Dream	(606)342-6447	GT-Power	300-14.4	Vipan Nath
AmigaPhile	(606)581-3776	AmiExpress.	9600-9600	Unknown
Andromeda Galaxy	(606)224-8767	VirtualBBS.	1200-14.4	Jeremiah Greer
Applesiders/Mac #1	(606)572-5375	Conversatio	300-2400	Gary Johnston, etc.
Applesiders/Mac #2	(606)572-5685	Conversatio	300-14.4	Gary Johnston, etc.
Asylum	(606)273-9983	GT Power.	300-14.4	Kathy Hale
Bluegrass IBM Users	(606)272-0499	RBBS	300-2400	Ron Nutter
C=ommonWealth BBS	(606)331-3612	Tri-BBS	2400-14.4	Tom "Irishman" Reilly
CKCS #1 (Public)	(606)233-0154	PC Board	300-14.4	Paul Stackhouse
CKCS #2 (Member)	(606)254-2527	PC Board	2400-14.4	Paul Stackhouse
Camera Shop	(606)223-8348	GT Power.	300-14.4	Russ Tucker
Cincidel	(606)282-9803	Citidel.	1200-14.4	Tom "Bucco" Kirkland
CityNet BBS	(606)254-7640	Major BBS	UpTo-14.4	Scott Estes
CloudWalker	(606)858-3071	VirtualBBS.	UpTo-2400	John Archanbeau
Club Changez of N. KY	(606)331-2663	SuperBBS	1200-14.4	Larry Huegele
CompDesign	(606)277-2893	PC Board	1200-14.4	Bryan McNee
Computer & Networks	(606)257-1597	PC Board	300-9600	Frank Megilligan
Continuum	(606)272-6196	Unknown	-	Chris Haley
Dark Alley	(606)231-8650	VirtualBBS.	300-14.4	Scott Powell
Dark Side of Reality	(606)299-1211	VirtualBBS.	UpTo-2400	Void & Spacey
DataNet Info. System	(606)727-3638	MAXIMUS	2400-14.4	Rick Ashworth
DiGiTaL DrAgOn	(606)863-2540	CNet.	300-14.4	Mark Anderson
Dr. C's Laboratory	(606)581-0013	GT-Power	300-14.4	Cecil Dennis
Eleutheria	(606)223-1853	Renegade	1200-14.4	Jeff McArdle
Empyrean Plains	(606)272-6696	Renegade.	300-9600	Lance Radebaugh
Family Disease	(606)356-0032	Telegard.	1200-14.4	Kythorne Mikrar
Farmer's Market	(606)278-1309	Wildcat.	300-2400	Phyllis Farmer
File World	(502)867-1800	TBBS	300-14.4	Jim Cook
Final Frontier	(606)624-3028	Unknown	-	Bill Browning
Fractured Files	(606)282-0391	Spitfire	2400-14.4	Rick Hill/Jim Dotson
Friendship Factory	(502)867-1800	TBBS.	300-14.4	Jim Cook
Genuine Draft	(606)224-4208	Renegade	UpTo-14.4	Mike Burton
Heights	(606)887-5850	Unknown	-	Mark Owen
InfoStation	(606)269-7128	GT Power.	1200-28.8	Perry Alexander
Innovations	(606)431-4000	Spitfire	1200-2400	Rich Riedling
Intellectual Dementia	(606)281-0098	VirtualBBS.	300-14.4	Pat Spencer
Jim's Host Line	(606)224-9573	ProBoard	300-16.8	Jim Blancet
Jolly Roger	(606)261-2971	Wildcat.	1200-2400	Jeff Kidwell
Kentucky Explorer BBS	(606)271-1451	GT Power.	1200-14.4	Jon Hagee
Knight Time	(606)269-5777	Major BBS	UpTo-2400	Mark Knight
Kool World	(606)278-2038	Unknown	-	Lee Moore
LaGrange	(606)273-3716	GT Power.	300-14.4	Sam Hale
Land of Mordor	(606)491-3241	Wildcat.	1200-14.4	Steve Burg
Lefty's Bar & Grill	(606)254-6199	GT Power.	9600-14.4	Don Frederich
Lexmark BBS	(606)232-5238	PC Board	300-14.4	Steve Henderson
Locomotive Breath BBS	(606)276-1631	Wildcat.	1200-2400	Bill Slone
Lord Balfane's Manor	(606)271-4270	GT Power.	1200-14.4	Steve Elam
Lunatix #1	(606)269-1883	Unix	300-14.4	Sam Hale/Bob Sexton

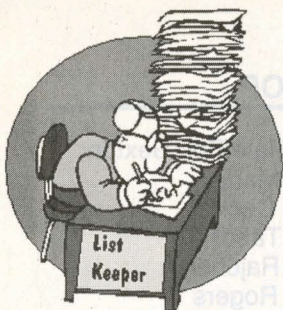
TITLE	TELEPHONE	SOFTWARE	SPEED	SYSOP
Lunatic #2	(606)269-0992	Unix	300-2400	Sam Hale/Bob Sexton
Lysergic Soma Dreams	(606)273-8424	CNet	300-14.4	Chris Martin
Magic Disk	(606)277-4120	VirtualBBS	UpTo-14.4	Kevin Cecil
Micro Attic RBBS	(606)485-9546	RBBS	300-2400	Larry Tabor
Missing Link	(502)863-7800	Wildcat	300-14.4	Chris Rajchel
Mr Rogers Neighborhood	(606)271-0558	Tri-BBS	300-14.4	Doug Rogers
Multi-Purpose BBS #1	(606)273-9472	Major BBS	300-14.4	Ralph Lucier
Multi-Purpose BBS #2	(606)273-3028	Major BBS	300-14.4	Ralph Lucier
Night Owl Network I	(606)282-7531	TAG	Upto-2400	Norman Huff
Night Owl Network II	(606)491-3280	TAG	Upto-2400	Norman Huff
Night Watcher I	(606)271-8352	Major BBS	300-2400	Andrew Smith
Night Watcher II	(606)271-8845	Major BBS	300-14.4	Andrew Smith
Night Watcher III	(606)271-1580	Major BBS	300-14.4	Andrew Smith
No Name BBS	(606)277-5449	Unknown	-	Nathan Cook
Not the Spam! BBS	(606)785-0980	VirtualBBS	UpTo2400	Kilgore Trout
OS/2 Zone	(606)887-2277	Maximus	300-14.4	Thomas Hatton
On the Town	(606)252-6636	ORACOMM	300-2400	Mike Jarrell
Opera House	(606)344-9948	WWIV	Upto-14.4	The Phantom
PlayLand II #1	(606)858-3156	VirtualBBS	300-14.4	Stephen Poekert
Playland I	(606)268-0776	VirtualBBS	300-2400	Todd Bunch
Playland II #2	(606)858-3637	Unknown	-	Stephen Poekert
PolyLine	(606)233-0426	Wildcat	300-14.4	Robert Pemberton
Prof BBS	(606)269-1565	Wildcat	2400-14.4	Don Bodley
Programmers Playground	(606)268-1251	Unknown	-	David Cecil
Proverbia	(606)268-2748	Unknown	-	H. Clayton Howell
Razor's Edge	(606)873-6637	Renegade	2400-14.4	Gerry Geurkink
Rhapsody in Blue	(606)331-1442	GT-Power	2400-16.8	Mark Seifried
Science Spoken Here	(606)233-5413	RBBS	300-2400	Jon Hagee (need help)
Semi-InSaNe	(606)331-6477	RBBS	2400-14.4	Unknown
Shotgun Blues	(606)272-6709	VirtualBBS	300-14.4	Greg Gross
Southgate BBS	(606)781-4220	Wildcat	2400-14.4	Steven Whitehead
Sprawl	(606)278-9709	GT Power	300-14.4	Scott Estes
Sunset Inn	(606)356-4843	GT-Power	300-16.8	Keith Coyne
TLC Computers #1	(606)331-5787	Spitfire	2400-9600	Lee Myers/Steve Davis
TLC Computers #2	(606)331-6766	Spitfire	2400-14.4	Lee Myers/Steve Davis
Testimony BBS	(606)873-6636	Unknown	-	Gerry Geurkink
The Cobra Zone	(606)223-1833	Major BBS	UpTo-9600	Daniel Middleton
The Niche BBS	(606)885-4757	TriBBS	upto-14.4	Daniel Laird/J. Nealis
The Only Alternative	(606)342-9631	Spitfire	2400-14.4	Mike Flynn/Jim Branam
Thoroughbred Connect	(502)868-9385	Rem. Access	300-2400	Gary Glass
Time Away	(606)291-4312	WildCat	2400-14.4	Ron Laws
Total Carnage BBS	(606)635-1594	Spitfire	2400-14.4	Adam Gross
Transept	(606)873-4664	PC Board	300-14.4	Robert Goh
Transy 80386	(606)276-2599	GT Power	300-14.4	Ron "Draconis" Snowden
Universal Escape	(606)271-2203	Unknown	-	Matt Branham
Watchdog's BBS	(606)299-4628	Unknown	-	Scott Lammers
Wildman's Shack #1	(606)781-9489	Renegade	Upto-14.4	Wildman
Wildman's Shack #2	(606)781-7020	Renegade	2400-14.4	Wildman
Zone BBS	(606)277-5463	GT Power	300-14.4	Greg "Ratus" Parsons
Zoo #1	(606)586-7508	MAXIMUS	300-14.4	Mark Walker
Zoo #2	(606)586-7507	MAXIMUS	300-14.4	Mark Walker

To list BBS or make changes - leave message for Sysop (606)271-1451.

or Net-mail Jon Hagee or Greg Satterfield at GT-Net 032/003.

or E-mail Jon Hagee at mclhagee@ukcc.uky.edu.

Latest update available at KY Explorer BBS. First Call/Bulletins.



BOARDWATCH

List of BBS List Keepers



This listing comprises a list of those who compile and maintain lists of bulletin boards, either by topical category, or by some geographic area or definition - often by area code. The primary bulletin board system where the list can be downloaded electronically is also included.

BBSLIST TOPIC	AUTHOR/EDITOR	CONTACT BBS	TELEPHONE
96 List - 9600+bps BBS	Ken Sukimoto	Downtown BBS	(213)484-0260
AC 516 Free Shareware BBS	Harold Stein	Long Island Exchange	(516)271-5303
Airline Pilot/JUMPSEAT BBSs	Rex Chadwell	ChicAgo Hangar	(708)980-1613
Alaska AC 907	Patti Johnson	Alaska Pirate Soc.	(907)248-9364
Alberta AC 403	Stephen Decarie	T-8000	(403)246-4487
Apple II BBS	Mike Shecket	Way Out	(614)436-4846
Apple II BBS with Internet con	Morgan Davis	pro-sol	(619)670-5379
Area Code 517 - Mid-Michigan	Rick Rosinski/SAMM	Wolverine BBS	(517)695-9952
Arkansas Area 501	Bob Underdown	The Blue & The Grey	(501)444-8420
ASP BBS Member List	Richard Holler	The RoadHouse BBS	(317)784-2147
Atlanta Area 404	Online Atlanta Society	OASIS	(404)627-2662
Atlanta Area 404	Rodney Aloia	The INDEX System	(404)924-8472
Austin Area BBS List AC 512	John Foster	Camel's Back BBS	(512)243-0077
Baltimore BBS Area 410	Brad Blase	Silver Streak BBS	(410)683-1583
BBS With Handicapped Focus	Bill McGarry	Handicap News BBS	(203)926-6168
Black Run/Oriented BBS	Arthur "Rambo" McGee	BDPA BAC BBS	(707)552-3314
Business/Professional BBS	Dennis Hauser	Delight The Customer	(517)797-3740
Calgary Alberta AC 403	Jeremy Birkett	The Quantum BBS	(403)252-5119
California AC 310	Jim Walton	Illusions BBS	(310)804-3324
Cave Exploration BBSs	Douglas L. Moore II	The CatEye BBS	(304)592-3390
Central California AC 209	Jack Porter/Madera UG	Zen Den Systems	(209)675-8436
Central California Area 805	Larry Honore	His Board	(805)652-1478
Champaign-Urbana IL AC 217	Eddie Thomson	The Dungeon BBS	(217)355-1214
Charlotte, NC AC 704	Blaine Schmidt	Moobasi Optics, Ink	(704)541-9842
Chicago	Peter Anvin	Royal Swedish Viking	(708)491-9033
Cleveland Area 216	Jim Barry	Flip Flop	(216)951-9134
Cochise County Arizona	Kevin McCrory	The Commo Shack BBS	(602)452-0587
Colorado AC 303/719	Willis Morrow	Big Boy's BBS	(303)458-3832
Commodore 64/128/Amiga BBS	John Rigali	Night Gallery	(818)448-8529
Connecticut AC 203	Kevin Brook	Creative Edge BBS	(203)743-4044
Conservation/Nature BBS List	D.Wendling/JS Christianso	Coin of the Realm	(301)585-6697
Corpus Christi	James Cordani	Treasure Island	(512)241-8358
Dallas/Ft. Worth BBS List	Mark Elson/Mike Shockley	Blues Cafe	(214)638-1181
Darwin National USBBS List	Bob Breedlove	Bob's BBS	(916)929-7511
Delaware AC 302	Vince Boehm/Dave Osburn	Talk Radio BBS	(302)429-7667
Desktop Publishing BBS	Frank Atlee	Infinite Perspective	(301)924-0398
Detroit Area 313	Horst Mann	Tony's Corner	(313)754-1131
Ecology/Conservation BBS	Bob Chapman	EarthArt BBS	(803)552-4389
Educational BBSs	Joe McIntosh	KSI Public BBS	(219)626-2150
Engineering Related BBS	Arthur Petrzalka	Computer Plumber	(319)337-6723
Firearms Related bbs	Jerry Brunet	Neon Nights	(804)588-4978
Gay & Lesbian BBS List	Billy Kennedy	Risquilly BBS	(708)495-6609
Geneology Related BBS	Richard A. Pence	NGS-CIG	(703)528-2612
Graphical User Interface BBS	David Shapiro	The Gooley (GUI) BBS	(212)876-5885
Ham/Amateur Radio BBS	Stan Staten	3WINKs BBS	(301)590-9629
Handicapped Issues BBS	Richard Barth	HEX BBS	(301)593-7357
Houston Area 713	David E. Wachenschwanz	Atomic Cafe BBS	(713)530-8875
Indiana BBSs	Joe McIntosh	KSI Public BBS	(219)626-2150
Indigenous People BBSs	Arthur McGee	BDPA BAC BBS	(707)552-3314

BBSLIST TOPIC	AUTHOR/EDITOR	CONTACT BBS	TELEPHONE
Kansas City Area 816/913	Roy Timberman	Sound Advice	(816)436-4516
Kentucky AC (606)	Jon Hagee	Kentucky Explorer	(606)271-1451
Kitsap County Washington	Michael Schuyler	Quicksilver BBS	(206)780-2011
Known Networks	Victor Laking	Generic BBS	(204)475-5199
Korean BBSs	Wayne Jeong	Korea America Online	(714)449-9373
Maine 207	Scott R. Bodeen	Street Corner BBS	(207)442-0997
Manitoba, Canada List AC 204	Victor Laking	Generic BBS	(204)475-5199
Medical Issues BBS	Edward Del Grosso	Black Bag	(610)454-7396
Minnesota Twin Cities AC 612	Barry Watson	Abiogenetic BBS	(612)774-8454
Miwaukee Area 414	Mark G.	The Castle	(414)327-5085
Modesto, CA BBS List	Chris Mitchell, "Gomba"	Anything Goes	(209)491-0782
Montana Area	Jay Michalik	Valley Light BBS	(406)273-6399
National BBS List	DP McIntire/Beth Spotts	Ameriboard	(412)349-6862
New Jersey AC 609	Dave Schubert	The Casino BBS	(609)485-2380
New Jersey Area 201/609/908	Wayne R. Morton	Praedo BBS	(609)953-0769
New Mexico Area Code (505)	Dan Kiehl	MDC Computers BBS	(505)434-0258
New Orleans BBS List	Jeff Jones	Southern Star BBS	(504)885-5928
North America Nudist List	Patrick O'Brien	Natural Connection	(414)426-2110
Oahu Hawaii	Brent Davis	Land's End BBS	(808)499-2527
Occult BBS	Phil Hansford	Mysteria	(818)353-8891
Ontario Canada	Sean Berry	Seventh Dimension	(905)571-6052
Open Access UNIX Site List	Phil Eschallier	LGNP1 (login:BBS)	(215)348-9727
Orlando BBS List AC 407	Lenny Lacuy	Infinite Space Onlin	(407)856-0021
OS/2 BBS Systems	Pete Norloff	OS2/Shareware BBS	(703)385-4325
OS/2 Related BBS	Dave Fisher	LiveNet 1:170/110	(918)481-5715
PCBoards on Internet	Ruben Melo	ponyXpress BBS	(508)587-7669
Pennsylvania AC 215/609/302	Ron Brandt	DSC/VOICENET	(215)443-9434
Phoenix AC (602)	John Mendivil	Majestic Royalty BBS	(602)278-1651
Phoenix AC (602)	Sue Widemark	Cheese Whiz BBS	(602)279-0793
Pinellas/Tampa Florida AC 813	Emery Mandel	Mercury Opus	(813)321-0734
Pittsburgh AC 412	Chas Stokes	Zuul's Catacombs	(412)264-9787
Portland Oregon BBS	Lisa Gronke	DawGone Disgusted	(503)297-9145
Puget Sound Area	Art Tomlin	Orion Station	(206)675-0565
Raleigh NC Area Code 919	Mike Stroud	Micro Message Svc.	(919)779-6674
Republic of South Africa	Henk Wolsink	Catalyst BBS	27-41-34-1122
Rhode Island Area 401	Mike Labbe	Eagle's Nest	(401)732-5292
Rochester NY AC 716	Tracy Logan	Logan's Run	(716)328-2914
San Diego AC 619	Joe Nicholson	General Alarm	(619)669-0385
San Diego, CA AC 619	Tom Grigg	ComputerEdge	(619)573-1675
San Francisco Bay Area	Mark Shapiro	BABBA BBS	(408)946-8592
Searchlight BBS Systems	Chad Payne	Montana MediaNet	(406)549-6325
Seattle AC 206/West Washington	Bob Dinse/Nanook	Eskimo North	(206)367-3837
Selected BBS	Joseph Caplinger & Son	J&J's BBS	(513)236-1229
South Florida Area 305/407	Eric Thav	Silicon Beach BBS	(305)474-6512
Southern California	Mike Hefferman	SOCAL Corner	(310)422-7942
St. Louis AC 314	Beth Brooks	Fire Escape's Dir	(314)741-9505
Switzerland BBS List	Cesar Keller	The Warehouse BBS	41-1-492-5157
Tacoma Washington AC 206	Richard Langsford	AmoCat BBS	(206)566-1155
Technical Support BBS List	Gary Barr	Digicom BBS	(812)479-1310
Tennessee AC 615/901	unknown	SPDA Info Service	(615)952-5638
Toledo Ohio Area 419/313	Ryck Zarick	Toledo's TBBS	(419)475-2241
Tulsa Oklahoma Area BBS List	Linda Hargraves	ACCESS AMERICA	(918)747-2542
U.S.S.R. BBS List	Serge Terekhov	Court Crimson King	7-3832-356722
Victoria/Vancouver AC 604	Mark Morley	Island Net	(604)477-5163
Virginia AC 703/804	Eddie Gebhard	PC Power House	(703)348-1423
Washington DC BBS List	Mike Focke	Interconnect	(703)425-2505
Wildcat! BBS	Jim Harrer	Wildcat! HQ	(805)395-0650
Wisconsin 608	Jim Wargula	JW-PC Dataflex.HST	(608)837-1923
Worcester MA AC (508)	Jim Metzler	Miwok Village BBS	(508)754-6512

July 1994

BBS SOFTWARE VENDORS

Product	Company	Voice	FAX	BBS	Platform	Tele Lines		MultiTasker		LANLogons	FIDO	Internet	QWK	Other	Chat	Price:MAX	Price:MIN
						LAN	PC										
CNet Pro 3	Perspective Software	313-537-6168	313-537-5942	313-255-2466	Amiga	Unlim	100	OS	Y	I	I	I	J	Y		\$229.95	\$229.95
CocoNet	Coconut Computing, Inc	619-456-2002	619-456-0815		UNIX	1000	-	OS	Y	N	I	N	N	Y		\$18,995	\$395
DLG Professional	Telepro Technologies	403-341-7826	403-341-7826	403-347-3262	AMIGA	Unlim	29	OS	N	I	3	3	N	Y		\$299	\$299
Excalibur BBS	Excalibur Communications, Inc	918-496-7881	918-491-0033	918-496-8113	Windows	Unlim	8	OS	Y	3	3	3	N	Y		\$349	\$199
EXCELSIOR!	Pro Sycom Design Software	313-774-2153	313-772-5802	313-772-6442	Amiga	Unlim	Unlim	OS	N	I	3	I	N	Y		\$199	\$199
Faulken	INFO*Share, Inc	703-791-2910	703-791-2910	703-749-2889	DOS	?	64	I	N	3	O	I	I	Y		\$999	\$149
FirstClass	SoftArc, Inc	416-299-4723	416-754-1856	416-609-2250	MAC	100	22	OS	Y	3	O	N	I	Y		\$3450	\$95
GAP	GAP Development Co	714-496-3774	714-496-3774	714-493-3819	DOS	100	16	DV	Y	3	3	I	Y	Y		\$359	\$79
Hermes II	Computer Classifieds	206-643-2316	206-643-7830	206-643-2874	MAC	10	10	OS	Y	3	3	N	N	Y		\$95	\$95
hi-BBS	XBR Communication	514-489-1001	514-489-4966	514-489-0445	MAC	130	?	OS	Y	N	O	N	N	Y		\$3400	\$70
Kitten	TelPro Technologies	804-442-5865	-	804-442-5867	DOS/OS2	999	?	OS	Y	3	3	N	N	Y		\$195	\$195
Magnum BBS	Gilmore Systems	805-379-3210	805-379-1340	805-379-3450	OS/2	64	?	OS	Y	N	N	I	N	Y		\$900	\$75
MEGAHOST	ASCII Computer Enterprises	-	-	209-836-2402	DOS	10	8	DV	Y	3	3	3	N	Y		\$49	\$49
Multi-Net	Multi-Net Communications	503-883-8099	503-883-7879	503-883-8197	OS2	999	12	OS	Y	N	N	I	N	Y		\$895	\$195
Novalink Professional	ResNova Software Inc	714-379-9000	714-379-9014	714-379-9004	MAC	Unlim	40	OS	Y	3	I	N	N	Y		?	\$300
OPUS-CBCS	214-528-4687	-	214-528-4943		DOS	255	1	DV	N	I	3	3	N	Y		Free	Free
PCBoard	Clark Development, Inc	801-261-1686	801-261-8987	801-261-8976	DOS	1000	+16	DV	Y	I	3	I	3	Y		\$10000	\$170
PowerBBS	Power Computing	516-938-0506	516-822-7396		Windows	Unlim	9	OS	N	3	I	I	N	Y		\$189	\$99
Powerboard BBS	NUIQ Software, Inc	914-833-3479	914-833-3623	914-833-1479	DOS	999	8	DV	Y	I	3	I	Y	Y		\$2300	\$99
ProBoard	ProBoard International	612-537-8655	612-537-8613	612-537-8659	DOS	255	8	DV	Y	I	N	I	N	Y		\$49	\$49
ProLine	Morgan Davis group	619-670-0563	619-670-9643	619-670-5379	APPLE II	1	1	-	Y	N	I	N	N	N		\$159.95	\$159.95
RemoteAccess	Wantree	913-441-1336	913-441-0596	913-441-0595	DOS	250	1	DV	Y	3	-	3	N	Y		\$529	\$149
RoboBoard/FX	Hamilton TeleGraphics	800-363-7626	819-685-0994	819-682-7771	DOS	255	8	DV	Y	3	O	N	N	Y		\$400	\$95
RyBBS	The Ryco Company	414-962-5967	-	414-962-1097	DOS	9	4	DV	Y	O	N	3	N	Y		\$175	\$75
Sapphire	Pinnacle Software	514-345-9578	514-733-8644	514-345-8654	DOS	1	1	-	N	N	N	N	N	Y		\$45	\$45
Searchlight BBS	Searchlight Software	800-780-5483	216-631-9289	216-631-9285	DOS	Unlim	10	DV	Y	I	3	3	3	Y		\$399	\$99
Second Sight Software	FreeSoft Co.	412-846-2700	-	412-846-5312	MAC	2	2	OS	Y	3	N	N	N	N		?	\$199
SpitFire BBS	Buffalo Creek Software	515-225-9552	-	515-225-8496	DOS	255	1	DV	Y	3	3	I	N	Y		\$85	\$85
Synchronet	Digital Dynamics	714-529-6328	714-529-9721	714-529-5313	DOS	250	10	DV	Y	I	3	I	N	Y		\$399	\$99
TBBS	eSoft, Inc	303-699-6565	303-699-6872	303-699-8222	DOS	-	64	I	N	O	3	O	N	Y		\$1995	\$295
TEAMate	MMBDevelopment Corp.	310-318-1322	310-318-2162	310-318-5302	UNIX	Unlim	-	OS	Y	N	O	O	N	Y		\$125000	\$2000
Telefinder	Spider Island Software	714-669-9260	714-669-1383	714-730-5785	MAC	200	20	OS	Y	3	3	N	N	Y		\$2000	\$425
The Major BBS	Galacticomm, Inc.	305-583-5990	305-583-7846	305-583-7808	DOS	256	256	I	Y	3	O	I	Y	Y		\$10717	\$259
TinyHost	Bruce Krobusek	716-924-8284	716-924-4193	716-924-4193	DOS	1	1	DV	N	N	N	N	N	Y		\$25	\$25
TriBBS	TriSoft	207-941-9388	207-941-0805		DOS	255	4	DV	Y	O	3	O	N	Y		\$75	\$75
UltraBBS	CDB Systems, Inc	303-444-7071	303-444-0035	303-642-7463	DOS	Unlim	4	DV	Y	I	I	I	Y	Y		\$75	\$75
Virtual BBS	Virtual Technologies	210-787-2443	616-399-8934	616-399-4818	DOS/OS2	1024	16	DV	Y	I	3	I	I	Y		\$999	\$99
Wildcat!	Mustang Software, Inc	805-873-2500	805-873-2599	805-873-2400	DOS	250	8	DV	Y	3	O	I	O	Y		\$799	\$129
WWIV	WWIV Software Services	210-631-6090	-	210-631-5841	DOS	999	8	DV	Y	3	3	3	N	Y		\$320	\$80
Z/Max XChange	Z/Max Computer Solutions, Inc	315-635-1882	315-635-1908	-	UNIX	Unlim	-	OS	Y	N	I	N	N	Y		?	\$695

Y = YES

N = NO

I = INTERNAL

O = OPTIONAL

3 = THIRD PARTY

The **BIG** List



Advertise your electronic bulletin board/online information service in Boardwatch Magazine. Let our readers know who you are and what you're doing with online technology. To order a BBS ad in the Boardwatch Classified BBS ad section, call the Boardwatch BBS at (303) 973-4222 and use our online ad entry system. In addition to standard list information, enter up to 255 characters of text describing your online service - all for \$25 per month. Master Card or Visa only.

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Clark Development Company, Inc., developer of **PCBOARD** BBS Software, has made a standing offer to pay **50%** of the cost of classified advertisements in *Boardwatch Magazine* placed by any BBS that notes their use of **PCBOARD 14.5a** or later software.

Your cost for an ad here: **\$12.50**

MicroSellar BBS (201)239-0001 Verona, New Jersey since 03/83. Sysop: Mark Rapp. Using PCBoard 15.1 with 10 lines on MS-DOS 80486 with 5100 MB storage. Hayes at 28800 bps. No fee. PCBoard 15.x alpha site. NJ's preferred BBS for the professional 11 yrs running. HiSpeed lines for easy access. Gold mine of the best-quality, latest files, games, info. Many mail networks including Internet. Trial access provided. Major credit cards.

Central Core BBS (201)575-8991 Montville, New Jersey since 01/85. Sysop: Mike Cocke. Using PCBoard 15.1 with 3 lines on MS-DOS 80386 with 3500 MB storage. ZyXel at 19200 bps. No fee. A BBS for grownups of all ages. Free Internet trial access. Member of ILink and BASNet echomail networks. Upload credits for messaging. Online national weather reports. Scrabble & trivia tournaments. Many technical interest files. No porn.

The Garden of Eden BBS (201)839-5401 Ringwood, New Jersey since 11/92. Sysop: Frank Molino. Using WildCat 3.90 with 3 lines on MS-DOS 80486 with 800 MB storage. US Robotics at 14400 bps. \$45 Annual fee. 12 CDs online with over 60,000 files including adult gifs. New in-house scans added weekly. Over 40 adult confs and 30 echomail confs. Online charge (Visa, MC, AMEX & Optima) TABS 900 Billing available. Call now. Your graphics supermarket. Unlimited dl.

THE CORBOLTIE & GOLDFINGER GRAPHICS (201)857-8601 Verona, New Jersey since 09/93. Sysop: Goldfinger. Using PCBoard 15 with 2 lines on MS-DOS 80486 with 340 MB storage. Zoom at 14400 bps. \$14.95 Half Year fee. Fully modified, constantly updated, with the latest breakthroughs in adult imaging. You won't believe your eyes. Members receive Free crystal clear scanning. GFG distro site. We make our own GIFS, games, PPEs, Icons, and more. We're online to satisfy.

BEACON STUDIOS BBS (201)863-5253 Union City, New Jersey since 01/93. Sysop: Conrad Koblack. Using Major BBS 6.11 with 15 lines on MS-DOS 80486 with 15090 MB storage. Supra at 14400 bps. \$50 Hourly fee. Free trial period and Free downloads to new users. NJ's largest database of non-X rated downloadable files with 20 CD's online. 60 minutes daily for new users. 2 national chat linkups. 8 graphics libraries. UseNet, FidoNet and MajorNet.

Jezebel's Parlour BBS (201)927-2932 Flinders, New Jersey since 04/92. Sysop: Beverly Delisa. Using TBBS 2.2 with 12 lines on MS-DOS 80386 with 3720 MB storage. US Robotics at 9600 bps. \$50 Annual fee. Over 7 gigabytes of files, including adult graphics. New in-house scanned Gif files added each week. Online games and databases, user to user chat, conference areas, and adult matchmaking. The BBS with the feminine touch.

ProStar Plus (206)941-0317 Auburn, Washington since 01/88. Sysop: Robert Michnick. Using MajorBBS 6.11 with 91 lines on MS-DOS 80486 with 10000 MB storage. US Robotics at 14400 bps. \$50 Hourly fee. Join the best in the West, 200,000 files, MajorNet central hub nightly national chats via InterLink, 75 games, national access from 500 cities, ProStar After Dark for the over 18 crowd, free Internet access, Seattle DateLine, real-time stocks and more.

Exxtacy Adult BBS (209)962-4045 Pine Mt. Lake, California since 04/86. Sysop: Victoria Cummings. Using MajorBBS 6.12 with 4 lines on MS-DOS 80486 with 6000 MB storage. US Robotics at 9600 bps. \$25 Annual fee. 6 Gigs and over 20,000 latest hi-rez erotic files. New member bonus. Free amateur x-rated video to new members this month. Full access and Free adult videotape only \$25 a year. Visa and mastercard accepted online. Call today, for exxtacy tonight.

MAJORBBS/MAJORNET BBS OPERATORS

Galacticomm, Inc., developer of **MajorBBS** and ProStar Software, Inc., developer of MailLink and **MajorNet** have made a standing offer to pay **50%** of the cost of classified advertisements in *Boardwatch Magazine* placed by any BBS that notes their use of **MajorBBS & MajorNet**

Your cost for an ad here: **\$12.50**

Islam Lifestyles BBS (212)679-0813 New York City, New York since 12/1 . Sysop: Yaakob Abdullah. Using WildCat 3.9 with 2 lines on MS-DOS 80486 with 2000 MB storage. Hayes at 28800 bps. No fee. Discussion of religion, politics, food, and spirituality. Sysops: join ISLAMNET and get internet news free. All users get: latest shareware online, ABUNET, Searchnet, Afronet, Islamnet and read, post to soc.religion.islam.

Midnight Driver Data Super Highway (212)750-3643 New York City since 07/93. Sysop: Dave Lew. Using PCBoard 15.1 with 4 lines on MS-DOS 80486 with 3000 MB storage. Hayes at 28800 bps. \$59.95 Annual fee. Free Internet mail and Usenet news. Over 866 Usenet newsgroups and increasing every day. 2 CD-ROMs with tons of Shareware. Lots of games including the latest Apogee wares. The best buy around. Come cruise by and see what all the excitement is about.

Midnight Driver Data Super Highway (212)750-3643 New York City, New York since 07/93. Sysop: Dave Lew. Using PCBoard 15.1 with 4 lines on MS-DOS 80486 with 3000 MB storage. Hayes at 28800 bps. \$59.95 Annual fee. Free Internet mail and Usenet news. Over 800 Usenet newsgroups and increasing every day. 2 CD-ROMs with tons of shareware. Lots of games including the latest Apogee wares. The best buy around. Come cruise by and see what all the excitement is about.

Metro Online Entertainment System (212)996-3664 New York City, New York since 01/86. Sysop: Jeffrey Rader. Using MajorBBS 6.21 with 64 lines on MS-DOS 80486 with 1000 MB storage. Multitech at 14400 bps. \$10 Monthly fee. Long Island callers local number (516)796-1063, national local access available from SprintNet. World Link Chat 24 hours a day. Matchmaker, chat, large download library, single and multi player games, Internet email and newsgroups.

The Liberty BBS (213)732-2300 Los Angeles, California since 07/92. Sysop: John Galt. Using MajorBBS 6.12 with 134 lines on MS-DOS 80486 with 5420 MB storage. US Robotics at 2400 bps. \$10 Monthly fee. Local to callers from 8 California area codes. Nationwide ChatLink, WorldLink, MailLink, MajorNet, Internet & Usenet newsgroups. Use your modem to call 800-474-1818 for local & low cost nationwide SprintNet access information. Chat, games, news & more.

BCS BBS (213)962-2902 Los Angeles, California since 03/92. Sysop: Jim Lee. Using WildCat 3.90P with 6 lines on MS-DOS 80486 with 2500 MB storage. US Robotics at 14400 bps. \$52 Annual fee. Los Angeles' premium BBS. Full subscription. ILink, Cal-Link & Internet, Usenet. Quality files only. New services regularly added. All major credit cards. 6 high speed lines and growing rapidly.

THE ANARCHIST'S BBS (214)289-8328 Dallas, Texas since 06/93. Sysop: Alan Bradshaw. Using Spitfire 3.4 with 5 lines on MS-DOS 80486 with 1500 MB storage. US Robotics at 14400 bps. No fee. Categories include: bombs, computer hacking, drugs, fake ID, firearms, fraud and con games, investigative techniques, locksmithing, phone phreaking, political, revenge, sex, surveillance, and survival. Encrypted email. No ID verification.

The Blues Cafe (214)638-1186 Dallas, Texas since 05/91. Sysop: Mark Elson. Using WildCat! 3.9M with 8 lines on MS-DOS 80486 with 30 MB storage. US Robotics at 19200 bps. \$10.00 Monthly fee. Fees range with access level & duration. 30 day trial account. Large music & mature files database. Featuring Usenet, Fidonet, Throbbnet, Kinknet, Wildnet, & active local conferences. BigD online DFW BBS listing published here. Free dl.

The GaRBaGe DuMP BBS (214)644-6060 Dallas, Texas since 12/90. Sysop: Dean Kerl. Using MajorBBS 6.21 with 100 lines on MS-DOS 80486 with 10300 MB storage. Hayes at 2400 bps. No fee. Hugh BBS featuring chat, message forums, MailLink, MajorNet, Internet email and newsgroups, CD-ROM file library, games, online trivia. Adults only, uncensored chat and message areas. Our motto says it all: Caution! Adults at Play. Voice 505-294-4980.

The Anterra Network (215)675-3851 Hatboro, Pennsylvania since 03/90. Sysop: Steve Ferguson. Using WildCat 3.9 with 5 lines on MS-DOS 80486 with 10800 MB storage. US Robotics at 16.8 bps. \$5 Monthly fee. Philadelphia area's largest BBS. Over 53,000 files and 700 message conferences from FidoNet, WildNet, ThrobbNet, AdultNet, ElNet, and RimeNet. The best game of Trade Wars in the 215 area code.

The Round Table (215)678-0818 Reading, Pennsylvania since 03/90. Sysop: Dan McCoy. Using PCBoard 14.5a with 7 lines on MS-DOS 80386 with 2500 MB storage. US Robotics at 14400 bps. \$20 Annual fee. Free two week access for all. Engineering & AutoCad specialty system. 50,000+ files technical, Windows, DOS util & more. 400+ qigs on 6 networks. USA Today, games, & news. Member USN and ASP.

ONIX (215)879-6616 Philadelphia, Pennsylvania since 04/87. Sysop: Jeff N. Miller. Using MajorBBS 6.12 with 20 lines on MS-DOS 80486 with 2550 MB storage. US Robotics at 21600 bps. \$15 Monthly fee. Philadelphia's friendliest BBS. 38 multi-player games. Files for IBM, Amiga, MAC, Windows. Local & national chat lines. Internet, Usenet, Majornet, Worldlink. RIP support. 30 days free for new members. King of Prussia: (610)992-1720

The Scientist's and Musician's BBS (216)639-9508 Concord, Ohio since 01/90. Sysop: Soo Kurz. Using PCBoard 15.1 with 10 lines on MS-DOS 80486 with 14000 MB storage. Hayes at 14400 bps. \$50 Annual fee. Science and music powerhouse. Medicine, engineering, MIDI, programming, FSNET, MIDLink, Internet with Usenet, huge adult area, games, doors, something for everyone, limited free access, \$10 full access trial subscription.

Flip Flop (216)951-9150 Cleveland, Ohio since 03/89. Sysop: Jim Barry. Using Searchlight 4.0 with 4 lines on MS-DOS 80486 with 340 MB storage. v.32bis at 14400 bps. No fee. We don't have alot of rules. Just treat the other users with respect. Home of the Wine Cellar Cleveland BBS List. Free. What's the catch? There isn't one. Then who pays for this ad? Oh, that crazy Sysop Jim. Figures. See you on the Flip Flop.

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CyberSpace DataBase (813)796-5627 Clearwater, Florida since 09/82. Sysop: Steve Sanders. Using PCBoard 15.1 with 3 lines on MS-DOS 80486 with 10000 MB storage. US Robotics at 28800 bps. \$50.00 Annual fee. Everything for Windows, Sound Cards, VGA games, DTP, HAM Radio, AMSAT, Adult GIFs, Utilities, Applications, Spreadsheets, more. 12 CD-ROMS and BIG hard drives = 80,000+ files! Hi-resolution GOES weather satellite photos daily. V.Fast Class modems !!!

The Fourth Dimension XXX (813)937-3102 Holiday, Florida since 04/93. Sysop: CJ Therrien. Using WildCat 3.9 with 8 lines on MS-DOS 80486 with 10000 MB storage. Zoltrix at 14400 bps. \$10.00 Monthly fee. All XXX adult, place to meet. 4.0 Gigs online. 24hours a day, all new files. No Junk.

PornoGraffiti XIII (813)968-5552 Tampa, Florida since 04/94. Sysop: Bacchus. Using Maximus 2.01 with 2 lines on MS-DOS 80386 with 1000 MB storage. Generic at 14400 bps. \$30 Half Year fee. Choose from a trial week to a lifetime membership and receive the Best in amateur GIFs. We're an all adults BBS catering to swingers and other adult lifestyles. We hold monthly parties and events for our users and really like to have a good time.

The Emporium BBS! (817)543-4250 Arlington, Texas since 10/88. Sysop: Henry Buchanan. Using Remote Access 2 with 20 lines on MS-DOS 80486 with 6000 MB storage. US Robotics at 19200 bps. \$75 Annual fee. One of the largest collections of adult files! Over 17,000 adult files online. Adult games online, with online chat and messages! ADULTS only! Must be 21 years of age or older! Immediate adult access w/valid credit card - VISA, Mastercard, Discover, AMEX

Panasia BBS (818)569-3740 Glendale, California since 05/89. Sysop: William Padilla. Using PCBoard 15.1 with 1 line on MS-DOS 80486 with 50 MB storage. US Robotics at 19200 bps. \$20 Annual fee. We offer Internet e-mail access, carry all ILink conferences, and feature ThrobNet adult conferences. A modest but high quality file area is available. There is no total daily time limit. System can be demo'd by logging on as TEST DRIVE (pswd: PANASIA).

The Wine Connection BBS (818)718-5994 Winnetka, California since 11/93. Sysop: Paul Sennett. Using TBBS 2.2 with 5 lines on MS-DOS 80486 with 250 MB storage. ZOOM at 14400 bps. No fee. Your best connection for Fine Wine! Communicate with other Wine Enthusiasts about Fine Wines you want to buy or sell and also about many other Wine Topics. Glossary of Wine Terms, Grape Varieties, California's Premium Wineries, and much more.

Techno Surfing BBS (818)769-0691 San Fernando Valley Los Angeles since 02/01. Sysop: Barry Lampert. Using MajorBBS 6.12 with 8 lines on MS-DOS 80486 with 1600 MB storage. US Robotics at 19200 bps. \$8.85 Monthly fee. Multi Player online Games, Swords & Sorcery, Novatrek, Blademaster, Etc., Adult GIFs, Adult Chat, Adult Forums, DC-NET Adult VIEWING, DC-NET Shopping, SHareware Files Library, Using MAJOR BBS Software, Parties, Classified advertising, L.A. #213/937-1652

KBBS Los Angeles (818)886-0872 Beverly Hills, California since 09/88. Sysop: Dale. Using MajorBBS 6.21 with 68 lines on MS-DOS 80486 with 10000 MB storage. Hayes at 28800 bps. \$9.50+ Monthly fee. The largest 21 and over BBS in the West. Tradewars 2002, Erotica, and other games online. Nationwide Chatlink & WorldLink all evening, EVERY evening. Over 7000 members, InterNet, and MajorNet via Satellite. Free Trial. Write sysop@kbbs.com.

DRAGON KEEP (904)375-3500 Gainesville, Florida since 01/87. Sysop: Dragon. Using MajorBBS 6.2 with 32 lines on MS-DOS 80486 with 5000 MB storage. US Robotics at 14400 bps. \$.25 Hourly fee. Exciting Realtime Multi-Player Games, 24 Hr LIVE Chat featuring Global Chatlink every night 10PM-1AM (EST). Over 50,000 files online w/ 6 CD-ROM's, MajorNet, NetAccess, and Internet. Instant access w/ VISA MC AMER call (904)375-6431 for 14.4 Access!

Drum Corps USA (904)666-8405 Spring Hill, Florida since 10/92. Sysop: Lou Labetti. Using WildCat! 3.9 with 1 line on MS-DOS 80486 with 1000 MB storage. Reveal at 19200 bps. \$30 Annual fee. A BBS for everyone, from kids to the adults, Lots of games, Messages and files. Member Fidonet, Internet, Usenet, Jobnet, Cownet, MSInet, TNTnet, with more to come. We also offer free access, as well as online shopping. A Great Place to visit.

Alaska Information Cache (907)373-3205 Wasilla, Alaska since 01/94. Sysop: Bob Southwick. Using MajorBBS 6.21c with 2 lines on MS-DOS 80386 with 345 MB storage. US Robotics at 14400 bps. No fee. Alaska Information Cache provides travel info about the state of Alaska 1000+ travel services listed, online shopping for publications and videos about Alaska Fishing info, Forums on Alaskan topics, MajorNet, NetAccess, WorldLink

Programmer's Resource Center (908)355-9298 Elizabeth, New Jersey since 04/94. Sysop: Robert Villar. Using WildCat 3.9 with 2 lines on MS-DOS 80486 with 540 MB storage. Boca at 14400 bps. \$5 Monthly fee. This BBS caters to programmers and professionals. Thousands of source code files and tools to make life easier. On your first call, mention that you read Boardwatch and you get a Free 6 month subscription. Games and educational files available.

The Never Enough BBS (908)862-0631 Linden, New Jersey since 02/94. Sysop: Mike Demkowicz. Using PCBoard 15.1 with 1 line on MS-DOS 80386 with 700 MB storage. Hayes at 28800 bps. No fee. Full RIPscrip support - We have many files, games, CD-ROM, MegNET echo-mail, NJ Weather. An ADULT conference with adult games & GIF's (support members only). There are UL/DL ratios for regular members. WARNING!! I use Caller ID so NO duplicate accounts.

Cheers Online! (Cheersoft) (908)972-2387 Central New Jersey since 09/90. Sysop: Ian Rintel. Using MajorBBS 6.2x with 32 lines on MS-DOS 80486 with 500 MB storage. UDS at 2400 bps. \$5 Monthly fee. FREE TRIAL! Lost Caverns, World Conquest, Word Quest, Galactic Empire, Infinity Complex, Forbidden Lands, Farwest Trivia, Crosswords, MegaSlots, Wilderlands, Erotic a, Pro Chess, Gwars. Local Access Throughout New Jersey! MajorNet, 24 Hour Links!

Bits and Bytes BBS (909)356-4636 Fontana, California since 09/91. Sysop: Barly Redsar. Using PCBoard V15.1 with 7 lines on MS-DOS 80486 with 13000 MB storage. US Robotics at 21600 bps. \$38 Annual fee. BEST BBS around! You do not believe us? Well call and find out for yourself! How can you go wrong? Over 75000 files online (every week we have 700 new files), 60 Door games, 700 conferences (Internet, RIME, U'NI, Intelc, Throbnet, and more). Adult Only.

Legend Graphics OnLine (909)689-9229 Corona Hills, California since 11/91. Sysop: Joey Marquez. Using PCBoard 15 with 12 lines on LAN Network 80486s with 6000 MB storage. US Robotics at 14400 bps. \$5 Monthly fee. Nation's One Stop Graphics BBS! You will be impressed! Huge Adults Only File Areas! Simply the BEST in Southern California! SuperVGA Photo Images, Video in Motion MoviePICs! Visa MC AmExp Optima accepted.

The Erotic Shopping Network (913)780-0005 Olathe, Kansas since 04/93. Sysop: Dave McVey. Using MajorBBS 6.1 with 3 lines on MS-DOS 80386 with 485 MB storage. Zoom at 9600 bps. No fee. The first BBS of its kind in the U.S. On-line Adult shopping system featuring XXX videos, exciting lingerie, massage oils and lotions, condoms, marital aids and adult novelities. Catalogs available in hardcopy. MC, VISA welcome. Must be 18 or over.

The Tardis bbs (914)478-4609 Hastings, New York since 03/90. Sysop: Andrew Borr. Using PCBoard 15.1 with 1 line on MS-DOS 80386 with 1200 MB storage. US Robotics at 19200 bps. \$50 Annual fee. 2 CD-ROMS Online, Night Owl's Ver 11, My Pvt Col Disk #2. Carrying Rime and UN'I-net. Global wars and Tradewars online.

For Adults Only BBS (916)962-3973 Sacramento, California since 01/88. Sysop: Dale DeBord. Using Oracomm-PLUS 7.1 with 17 lines on MS-DOS 80486 with 2000 MB storage. Practical Peripheral at 14400 bps. \$14 Quarterly fee. Sacramento's largest and friendliest Adult CHAT, FILES System. Adult Message Bases, CHAT, GIF, GL, DL, FLI, Text and Game FILES. FREE Member GIFs. DISCOUNT Member Plans for Students and Military. FREE 3-HOUR TRIAL PERIOD. DOWNLOAD ON FIRST LOGON!

Black Gold BBS (918)272-7779 Tulsa, Oklahoma since 06/81. Sysop: Michael Cline. Using PCBoard 15.1 with 17 lines on MS-DOS 80486 with 32000 MB storage. US Robotics at 57600 bps. \$30 Annual fee. Full PageSat and Planet Connect. 32+ gigs, 26 writable. 100 Doors, Full time SYSOP's and much much more. Many free areas and files with 45 minutes free access per day. 350 file areas, 3+ million messages less than 7 days old. Never Porno. Just hard work.

ACCESS AMERICA (918)747-2542 Tulsa, Oklahoma since 03/88. Sysop: Vance Martin. Using TBBS 2.2 with 4 lines on MS-DOS 80386 with 1,550 MB storage. Hayes at 14400 bps. \$20 100 hours fee. Home of the JOBMARKET, the Original "Heavenly Bodies" GIF Collection, Internet E-mail & USENET Newsgroups, QWK offline mail system, FidoNet E-mail, Matchmaker & Personal Ads, multi-player and RIP games, 40,000+ ZIP files, Oklahoma travel info and MORE.

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BOARDWATCH MAGAZINE

NATIONAL LIST OF ELECTRONIC BULLETIN BOARDS AND ONLINE INFORMATION SERVICES - July 1994

SERVICE	PHONE	DESCRIPTION	SPONSOR/SYSOP	LOCATION
ADA 9X Project Bulletin Board	(800)232-9925	ADA Programming Language Revisions and News	Chris Anderson/Susan Carlson	Eglin AFB ,FL
ADA Information Clearinghouse	(703)614-0215	Information on ADA Programming Language/Military Specs	Department of Defense	Washington ,D.C.
Advanced Data Services Inc.	(301)695-9116	22 line PCBoard with 5.5 GB of Files	Blaine Brodka	Frederick ,MD
Alamo PC Organization	(210)496-5558	Numerous Files, Info	Robert Schoenert	San Antonio ,TX
Albuquerque ROS	(505)299-5974	36000 files/USA Today/Tradewars/Online Games	Steven Fox	Albuquerque ,NM
America's Suggestion Box	(516)471-8625	BBS Devoted to Collecting and Distributing Consumer Feedback	Joseph G. Jerszynski	Ronkonkoma ,NY
American Cybernetics BBS	(602)968-1082	Multi-Edit Product Support BBS	American Cybernetics	Tempe ,AZ
ANARC BBS	(913)345-1978	World Radio/TV Handbook - Short Wave Freq Lists/Scheds.	Assoc. of North American Radio Clubs	Shawnee Mission ,KS
APCUG - GlobalNet	(408)439-9367	Association of PC User Groups - Over 2000 UG officers	Paul Curtis/APCUG	Scotts Valley ,CA
Applied Modeling Research RBBS	(919)541-1325	Environmental Protection Agency Atmospheric Models	William Peterson/EPA	Hurdle Mills ,NC
Aquila BBS	(708)820-8344	6 GB 25 Nodes Fidonet/Interlink/Metronet MCE IL/CHI Graphics	Kevin Behrens/Steve Williams/Doug Bell	Aurora ,IL
Argus Computerized Exchange	(617)674-2345	Multiline Community Chat Service - Restaurant Review dbase	Pam Morrison	Lexington ,MA
AST Technical Services BBS	(714)727-4723	Superb support system for AST Computer Products	AST Research Inc.	Irvine ,CA
AT&T Support BBS	(908)769-6397	Support for PC 6300 and Other AT&T PC Models	American Telephone/Telegraph PC Division	Plainfield ,NJ
ATI Support BBS	(416)756-4591	Support for ATI Modems and Video Cards	ATI Technologies	Scarborough ,Ontario
Atomic Cafe BBS	(713)530-8875	Houston Area BBS list and Connect! Magazine	David Wachenschwanz	Houston ,TX
Atri BBS	(903)758-2784	4 Gigs Online All Fidonet Message areas Over 200 door games	Walter Cade	Longview ,TX
Attention to Details	(714)681-6221	Utilities/ASP/Patriquin Utils/Protocols	Clint Bradford	Mira Loma ,CA
Audiophile Network	(818)988-0452	High-end Audio Components, Music, Video Reviews	Guy Hickey/Quatre Speakers	Van Nuys ,CA
Automobile Consumer Services	(513)624-0552	New Car Pricing Reports - Used Car Value Reports	Automobile Consumer Services Inc.	Cincinnati ,OH
AviTechnic 1:261/662	(301)252-0717	Software Distribution System - BBS Utilities	Tom Hendricks	Lutherville ,MD
BBS America	(214)680-3406	Home of DFW Online Electronic Newsletter	Jay Gaines	Richardson ,TX
BCS BBS	(213)962-2902	Los Angeles' First Super BBS Under Development	Jim Lee	Los Angeles ,CA
BCS IBM BBS	(617)964-2540	IBM PC Topics - TBBS Software (Internet)	Boston Computer Society/Martin Hannigan	Boston ,MA
BCS Info Center BBS	(617)621-0882	General Topics - TBBS - Internet Mail	Boston Computer Society/Martin Hannigan	Boston ,MA
BCS Mac BBS	(617)864-0712	Macintosh Topics - Firstclass BBS Software	Boston Computer Society/Martin Hannigan	Boston ,MA
Beach Board BBS 1:371/1	(813)337-4950	Over 100 online games - Internet Mail - 8 lines - 48000 fls	Dave Ward	Fort Myers ,FL
Beyond Eternity	(310)371-3734	Home of EEEK! Bits - Weekly Electronic Trivia Magazine	J. Black/K. Taghadossi	Torrance ,CA
Beyond the Realm	(805)987-5506	200+ message areas 60+ file areas Fidonet VNet Adult Topics	Lee Ladisky	Cambridge ,CA
BMUG BBS	(510)849-2684	Support for Macintosh owners - files - conferences.	Berkeley Macintosh Users Group	Berkeley ,CA
Boardwatch Magazine Online Info	(303)973-4222	Distribution Service for USA Today/Boardwatch/Newsbytes	Boardwatch Magazine	Littleton ,CO
Book BBS	(215)657-6130	Information on 2000 Computer Books - 800 order number	Business & Computer Book Store	Willow Grove ,PA
Book Stacks Unlimited	(216)694-5732	200,000 Book Titles Database - Online Ordering	Charles Stack	Cleveland ,OH
Borland Download BBS	(408)431-5096	Utilities, Macros, Programming Examples for Borland Products	Borland International/Mike Fitz-Enz	Scotts Valley ,CA
Botnay Bay EIS	(603)431-7229	20 GB of Files - Adult areas - BBS Lists	Myles Bratter	Portsmouth ,NH
Boundary Waters BBS	(218)365-6907	Canoe Trips/Resorts/Fishing/Wilderness in Minnesota	Gary Knopp/InfoNorth	Ely ,MN
Bruce's Bar & Grill	(203)236-3761	24-line Social System - Chat - Games - Downloads	Bruce Lomasky	West Hartford ,CT
Bryant Software	(303)733-0773	Support & Demo of Bryant Software & TBBS Products	Alan Bryant	Denver ,CO
C.A.R.L Library Service	(303)758-1551	Citations to 4 Million Texts in Colorado Library System FREE	Colorado Alliance of Research Libraries	Denver ,CO
CAD/Engineering Service	(615)822-2539	Computer Aided Design File Distribution Network 1:116/32	Stan Bimson	Hendersonville ,TN
Canada Remote Systems	(416)213-6003	23GB/400000+ files, 3500 Conf's,USENET, IBM/Amiga/Mac	Neil Fleming/Jud Newell	Mississauga ,Ontario
Capital PC User's Group BBS	(301)738-9060	One of the oldest PC User's Groups - 5500 members	Capital PC Users Group/Roger Fajman	Rockville ,MD
Castle Tabby 107/412	(908)988-0706	Home of TABBY Fidonet Interface Program for Apple Macintosh	Michael E. Connick	Bradley Beach ,NJ
Caverns of the Abyss	(405)482-2980	4 Gigs Online CD Roms	Shannon Graham	Altus ,OK
CBBS/Chicago	(312)545-8086	First Electronic Bulletin Board - Since 2/16/78	Ward Christensen/Randy Suess	Chicago ,IL
Celebration Station	(207)374-5161	Adventure Games, Chat, and Sigs - Children	Noel Stookey (Paul of Peter,Paul & Mary)	Blue Hill Falls ,Maine
Central Point Software	(503)690-6650	PC Tools - Central Point Anti-virus support board	Central Point Software Inc.	Beaverton ,OR

Channel 1	(617)354-8873	70-line PCBoard - 8 GB Files - Internet - 1000's msg. confs.	Brian Miller/Tess Heder	Cambridge ,MA
Chicago SysLink	(708)795-4442	Special Interest Areas for Ferret/Pet Owners.TRS80/Aviation	George Matyaszek	Berwyn ,IL
Chinet	(312)283-0559	UNIX System offering Internet Mail	Randy Suess	Chicago ,IL
City Lites PCBoard	(701)772-5399	9 GB files, Rimenet, Internet, FidoNet, ASP, Online Orders	John Lundell	Grand Forks ,ND
City Online	(909)860-Line	City Government BBS Rip/Internet & more	Troy Butzlaff	Diamond Bar ,CA
Classified Connection BBS	(619)566-7347	Giffy Girls - Nude GIF Images of the Girl Next Door	Bill Kennon	San Diego ,CA
Cleveland Freenet	(216)368-3888	Cleveland City Info/Public Library - Free Internet Mail Box	Case Western University/AT&T/Ohio Bell	Cleveland ,OH
Cloud Nine	(713)855-4382	15 meg, 30 Nodes	Harold Lucas	Houston ,TX
Colorado Connection	(303)423-9775	Breeding, Raising, Taming, Exotic Birds	Terry Rune/Dave McClauggage	Arvada ,CO
Community News Service (CNS)	(719)520-5000	News and Entertainment - 17 Lines Community Focus	Klaus Dimmler	Colorado Springs ,CO
Compact Audio Disk Exchange	(415)824-7603	Buy/Sell/Trade Compact Audio Disks Online	Wayne Gregori	San Francisco ,CA
Computer Business Services	(714)396-0014	Book/Publishing Consultant Nick Anis' BBS	Nick Anis Jr.	Diamond Bar ,CA
Computer Business Services	(909)396-0014	Book/Publishing Consultant John C. Dvorak & Nick Anis' BBS	Nick Anis Jr.	Diamond Bar ,CA
Computer Garden	(301)546-1508	Treasure Hunting - Metal Detectors - Online Catalog	Milford P. Webster	Salisbury ,MD
Computing Canada Online	(416)497-5263	Adjunct to Excellent Canadian PC Newspaper	Computing Canada Newspaper	Willowdale ,Ontario
Crosstalk Communications BBS	(404)740-8428	Product Support for Crosstalk for Windows/MK4/XVI	Digital Communications Associates	Roswell ,GA
Cul-de-Sac Bar & Grill	(508)429-1784	Multiline Service - Ham Radio - Humor - TDBS Applications	Pete White	Holliston ,MA
CyberStore - a COCONET BBS	(604)526-3676	All lines to v.32bis/v.42/v.42bis. CyberTools for BBS'es	CyberStore Online Info. Systems Inc.	New Westminster ,BC
DAK Online Resource Center	(818)715-7153	DAK Mail Order Catalog - Breakmakers - CD ROMS - Computers	DAK Industries/Tom Krogh	Canoga Park ,CA
Dark Side of the Moon	(408)245-7726	Home of WAFFLE, Unix UUCP BBS Software for DOS and UNIX	Thomes E. Dell/Darkside International	Mountain View ,CA
Data Bank	(913)842-7744	Information HQ, Support Board, Net-Mail & Files	Bob Oyler	Lawrence ,KS
Data Core BBS	(310)842-6880	25 line Major BBS	Matthew Schoen/Delta Enterprises	Los Angeles ,CA
DataLink RBBS System	(214)394-7438	Weather Satellite Imaging, NOAA Satellite Tracking-AMSAT-NA	Dallas Remote Imaging Group/Jeff Wallach	Carrollton ,TX
Dawg Byte	(615)385-4268	ANSI Art Club 1:116/29	Kevin Snively	Nashville ,TN
Deep Cove BBS	(604)536-5885	16 line TBBS, 3500 MBytes files for IBM, MAC, Amiga	Wayne Duval	White Rock ,BC
Denver Exchange, The 104/909	(303)623-4965	Denver's Most Diverse Gay/Lesbian Info Service	James Craig	Denver ,CO
Denver Free-Net	(303)270-4865	Free Community Online Service - Health Info	University of Colorado Health Science	Denver ,CO
Distant Mirror BBS	(615)648-1782	Free Access BBS	Steve Perlo	Clarksville ,TN
Distributed Info Service	(718)727-1456	Information Service	Joseph Bianco	Staten Island ,NY
DNIS	(619)864-1468	Outstanding BBS Gateway to multiple information services	Mike Simmons	Palm Springs ,CA
Duke Graphics of San Diego	(619)793-8360	7 CD Roms Online, 4 gigs 50,000 files	Chris Duke	San Diego ,CA
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Electronic Publishers BBS	(503)624-4966	News-Finance-Sports-Games-2GB File Library	Brian Cash	Portland ,OR
Electronic Zone, The	(412)349-3504	Specializing in Hypertext	William R. Forbes	Indiana ,PA
Energy Info Admin E-Publications	(202)586-8658	Variety of Petroleum/Coal/Electricity Energy Statistics	US Department of Energy	Washington ,D.C.
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eSoft Product Support BBS	(303)699-8222	Home of The Bread Board System (TBBS) BBS Software	Phil Becker/eSoft Inc.	Aurora ,CO
Event Horizons	(503)697-5100	64 Line Digitized Graphics Image Library - Adult .GIF files	Jim Maxey	Lake Oswego ,OR
EXEC-PC	(414)789-4210	Largest BBS in US - 280 Lines -650,000 files - 35 Gigabytes	Bob and Tracey Mahoney	Elm Grove ,WI
Executive Network	(914)667-4567	Interlink Netmail National Host - Multiline PCBoard System	Andy Keeves	Mt. Vernon ,NY
Eye Contact BBS	(415)255-5972	22 line Oracomm - Gay Issues - Popular Chat System	Bill Montgomery	Mill Valley ,CA
FAA Flight Standards ASO-FSDO-15	(800)645-3736	FAA Flight Standards Publication & Info for the Aviation Com	FAA/Bill Hoenstine	Orlando ,FL
Falken Support BBS	(703)803-8000	Support for FALKEN software - 16 lines - doors - chat	Herb Rose	Woodbridge ,VA
Farwest BBS	(604)381-3934	Large Western Canada Galacticomm Info System	Ren L'Ecuier	Victoria ,BC
FAX/Satellite Services BBS	(619)224-3853	NOAA Weather Satellite Images - Russian/Japanese Sat Pics	Scotty Olson	San Diego ,CA
FCC Public Access Link	(301)725-1072	Equipment Authorization Status Advisory Service	Federal Communications Commission	Columbia ,MD
FEDLINK ALIX II	(202)707-4888	Info on Federal Libraries -Excerpts Library of Congress News	Federal Library Information Network	Washington ,D.C.
Fido Tech Stand	31-30-735900	Fidonet Technical Information for Holland	J.J. van der Maas	Utrecht ,Holland
Fire & Ice	(313)373-8608	A Family BBS With Christians Discussions	William Sims	Drayton Plains ,MI
Fisherman's Net	(614)837-0400	Dedicated to Fisherman	Lloyd Davidson	Carroll ,OH
FOG City BBS 125/10	(415)863-9697	Gay Community BBS - AIDS Info - Desktop Publishing - MACs	Bill Essex	San Francisco ,CA
Foundation Online Service	(203)968-8752	15+ Gigs 8 Lines Internet	David Deutsch	Stanford ,CT

BOARDWATCH MAGAZINE

NATIONAL LIST OF ELECTRONIC BULLETIN BOARDS AND ONLINE INFORMATION SERVICES - July 1994

SERVICE	PHONE	DESCRIPTION	SPONSOR/SYSOP	LOCATION
Fred the Computer	(508)872-8461	Newspaper BBS. Wierdnet Newswire. List of MA Libraries	Middlesex News-Adam Gaffin	Framingham ,MA
FreeBoard BBS, The	(804)744-0797	Desktop Publishing File Distribution Network 1:264/212	Bill Hunter	Midlothian ,VA
Fun Connection	(503)753-8431	Multiline Entertainment - 8 Lines Games/Chat/News	Vincent Reece	Corvallis ,OR
Galacticomm Demo System	(305)583-7808	Customer support for Major BBS	Galacticomm	Fort Lauderdale ,FL-
Garbage Dump	(505)294-5675	Hottest Chat in America - National Access \$1.75 per Hour	Dean Kerl & Simon Clement	Albuquerque ,NM
Gateway Communications BBS	(714)863-7097	Novell Network/TCP-IP Shareware Utilities	Carol De Jesus	Irvine ,CA
Gateway On-Line	(313)291-5571	Interactive Chat,MultitplayerGames,Usenet/Internet,E-mail	Jeff Breitner/Bill Mullen	Rockwood ,MI
GDP Technologies	(303)673-9470	Outstanding IBM Shareware on a small system	Tom Getty's	Lafayette ,CO
General, The	(619)281-8616	Popular File Library - GIF Images	Marc Teitler	San Diego ,CA
GISnet BBS	(303)447-0927	Graphics Information Systems/Mapping topics	Bill Thoen	Boulder ,CO
GLIB	(703)578-4542	Gay and Lesbian Information Bureau - 11 Lines - 9600 bps	Community Educational Svcs. Foundation	Arlington ,VA
GPO WINDO Online Service	(202)512-1387	Fed Information from EPA, DOE, State Department - others.	US Government Printing Office	Washington ,DC
Greenpeace Environet	(415)512-9108	Ecological and Peace Issues - Disarmament/Toxics/Wildlife	Dick Dillman/Greenpeace	San Francisco ,CA
Hackers R Us Online	(602)945-8416	Online Games, Files & Tech Discussions	David Ray	Scottsdale ,AZ
Hackers World BBS	(309)672-4405	Adult Files, Fidonet Echo-Mail Adult-net	Martin Belcke	Peoria ,IL
Harris City Medical BBS	(713)790-1093	Medical Information	Monica Faulk	Houston ,TX
Hayes Advanced Systems Support	(800)874-2937	Customer Support Line for Hayes Customers. V-series/Ultra	Hayes Microcomputer Products	Norcross ,GA
Heartland Free-net	(309)674-1100	Community Online Service - Free Internet E-Mail Boxes	Peoria County Board/Bradley University	Peoria ,IL
Herpnet/Satronics TBBS	(215)698-1905	Reptile and Amphibian Studies - Poison Snakes/Toads/Fish	Mark Miller	Philadelphia ,PA
HH Info-Net BBS	(203)246-3747	MS Windows and OS/2 Files our specialty	Lee Winsor	New Hartford ,CT
HoloNet	(510)704-1058	National Access,INTERNET,USENET,CHAT,GIFS,FILES	Information Access Technologies, Inc.	Berkeley ,CA
HouseNet BBS	(410)745-2037	Home Fixup/Repair/Renovation Tips, Advice, and Articles	Gene and Katie Hamilton	St. Michaels ,MD
Howard's Notebook 1:280/25	(816)331-5868	Environmental, Peace, Justice since 1982 - 4 nodes	Jim Howard	Kansas City ,MO
Hysterics	(613)231-7144	Amiga File Distribution Network 1:163/109	Russell McOrmond	Ottawa, Ontario ,
IBM National Support Center BBS	(404)835-5300	IBM PC User Groups Database - Newsletter Exchange	IBM National Support Center	Atlanta ,GA
Inbound/Outbound/Teleconnect	(212)989-4675	Telephone Sales Trade Magazine Online Service	Harry Newton Publications	New York ,NY
Infinite Space Online	(407)856-0021	32 Line Interactive Chat & Games Majornet	Charlie Scherker	Orlando ,FL
InfoHost Demo BBS	(201)335-2253	Demo BBS for InfoHost BBS Software - Multiline - Database	A-Comm Electronics Inc.	Hasbrouch Heights ,NJ
Inns of Court, The	(214)458-2620	LAN Related Files and Utilities 1:124/6101	Arthur Geffen	Dallas ,TX
Intel PCEO Support BBS	(503)645-6275	Support for Intel PC Products - Inboard 386/AboveBoard 286	Intel Corporation PCEO Division	Hillsborough ,OR
Inter Comm	(702)359-2666	6 Line 5.5 Gig 30,000 Files	Roger Brown	Spark ,NV
InterMail Tech Support BBS	(305)436-1884	Home of InterMail, Front End Mailer for FidoNet 1:369/102	Patrik Bertilsson	Hollywood ,FL
Invention Factory	(212)274-8110	46 Lines - 100 Directories - Full Usenet Feed - 8.2 GB	Mike Sussell	New York ,NY
Investor's Online Data	(206)285-5359	Online Investment/Stock Market Information/Tech Analysis	Don Shepherdson	Bellevue ,WA
JDR Microdevices BBS	(408)559-0253	Online Hardware Order - Catalog - 1.1 GB Files - Quizzes	JDR Microdevices	San Jose ,CA
JOBBS	(404)992-8937	Online Job Listings - 2186 Technical Pos. - 10,000 Corps.	Alpha Systems Inc./Bill Griffin	Roswell ,GA
Keith Graham Shareware Support	(914)623-0039	OPTIK, TEXT2COM, CBOOT, very good shareware utilities	Keith P. Graham	Nyack ,NY
KIMBERELY BBS	(612)340-2489	Prime Rate-Fed Funds-T-Bill-Discount Rate-Economic Data	Federal Reserve Bank of Minneapolis	Minneapolis ,MN
King's Market BBS 104/115	(303)665-6091	400 MB Books, Writers Area - TRS 80 Support	Jim and Karen Burt	Boulder ,CO
Knight Vision BBS	(213)344-3600	Chess and Backgammon - 8 lines - "Intelligent Entertainment"	Matthew Beelby	Pasadena ,CA
Lace's Place	(718)822-3552	Female Domination Adult BBS online since 7/91	Ellen Grogan	New York City ,NY
LANTastic BBS	(602)293-8065	Support for LANTastic local area network	Artisoft Inc.	Tucson ,AZ
Late Night Software 125/555	(415)695-0759	Home of UFGATE - Software to connect PCs to UUCP/Usenet	Tim Pozar	San Francisco ,CA
LegalEase	(509)326-3238	Legal issues/Forms - Law BBS List	Bill Sorcinelli	Spokane ,WA
LICA Limbs BBS	(516)561-6590	Member written software PC Board 15.0 USR HST Since 1980	Dave Minott	Valley Stream ,NY
Lincoln Cabin BBS	(415)752-4490	General Interests & Rime	Steve Pomerantz	San Francisco ,CA
MAC-LINK	(514)486-8959	Macintosh Oriented Support BBS - 6 Lines - Infomat/BIX	Mark Smith	Montreal ,Quebec

Macalot Bulletin Board	(412)846-5312	Support for Second Sight BBS Software for Macintosh	Jeff Dripps/FreeSoft Company	Beaver Falls ,PA
MacCircles	(303)526-2219	Mac System Software distributor, mail, sigs, files	Patricia O'Connor	Golden ,CO
MacInternational	(803)798-3755	Macintosh support since April '85. FirstClass BBS	Ralph Yount	Columbia ,SC
Magpie BBS	(212)420-0527	Support/Demo System for Magpie BBS/Conferencing Software	Steve Manes	New York ,NY
MaxiHost Support BBS	(209)836-2402	MaxiHost BBS - small, very easy to run BBS	Don Mankin	San Ramon ,CA
Mayan Antiquities	(214)691-1316	Mayan Culture and Antiquities	Ron Whipple	Dallas ,TX
McAfee Associates BBS	(408)988-4004	Computer Virus Information - VIRUSCAN and CLEANUP	John McAfee/CVIA	Santa Clara ,CA
Med Technet	(716)688-1552	A BBS for Medical Info	Bill Hliwa	East Amherst ,NY
Medi-Call BBS	(818)330-1739	Active 2 lines PubSvc w/ 120 netmail confs., & GIGs of Files	Gordon Huyck	La Puenet, CA
Meeting Works, The	(212)737-6932	Meeting/seminar/convention planning information.	John Mackenzie	New York ,NY
METRO Online Entertainment	(212)831-9280	32 line DLX with City Guide/Ski Database - Matchmaker - Chat	Bruce Kamm/Metro Online Services	New York City ,NY
Micro Foundry, The	(415)598-0398	2.2 GB Downloads - Your Online Software Source - Boardwatch	Thomas Nelson/Clockwork Software	San Jose ,CA
Micro Message Service	(919)779-6674	USA Today/Boxoffice Magazine - Large Download Area	Mike Stroud	Raleigh ,NC
Microrim Technical Support BBS	(206)649-9836	Support for Popular R:Base Relational Data Base System	Microrim Corporation	Redmond ,WA
Microsoft Download BBS	(206)936-6735	Windows Technical Notes and Support Information	Microsoft Corp/Scott J. Honaker	Bellevue ,WA
Microsystems Software Inc.	(508)875-8009	HandiWare Software for Handicapped - CodeRunner C Utilities	MSI - Reed Lewis	Framingham ,MA
MindVox	(212)989-4141	Internet Access, E-Mail, Newsgroups, ftp/telnet	Phantom Access Technologies	New York ,NY
Minnesota Space Frontier	(612)459-0892	Minnesota Space Frontier Society - NASA News	Ben Husset	Minneapolis ,MN
MOG-UR'S EMS, The	(818)366-1238	5 Lines - 8 Networks CD-ROMS - 2.8 GB Hub Services HST/V.32	Tom Tcimpidis	Granada Hills ,CA
Monterey Gaming System	(408)655-5555	A Custom Multi-user BBS with Conferencing and Custom Games	David Janakes	Monterey ,CA
Mountain Air BBS	(703)427-0226	Adult Based BBS	Edward Lee Wood, Jr.	Roanoke ,VA
Movie BBS	(718)939-5462	Movie Reviews and Information - Television	Clarke Ulmer	New York ,NY
Mustang Software	(805)873-2400	Support for Mustang Software Products	MSI Sysop	Bakersfield ,CA
N.A.C.D. BBS	(912)246-3280	Cave Scuba Diving - Superb Special Topic System	National Assoc. of Cave Divers	Gainesville ,FL
N8EMR Ham BBS	(614)895-2553	login:hbbs HAM Radio/AMSAT Unix System - Satellite/Packet	Gary Sanders	Westerville ,OH
Namu BBS	(913)273-1550	Amateur Radio Interests	Rob Nall	Topeka ,KS
NAPLPS Graphics BBS	(613)727-5272	NAPLPS Graphics Terminal and Editor Software	MicroStar Corp.	Nepean ,Ontario
NASA Spacelink	(205)895-0028	NASA Educational Affairs Div. - Flight Data/Space History	Marshall Space Flight Center	Huntsville ,AL
Nashville Exchange	(615)383-0727	12 line TBBS - Games/TDBS Software Development 1.8 GB	Ben Cunningham	Nashville ,TN
National Genealogical BBS	(703)528-2612	Family History - Genealogical Research - Gravestone Haunting	National Genealogical Society	Arlington ,VA
Netcom Internet Guest System	(408)241-9760	Internet Access System - type "guest" at login for info.	Netcom Online Communications Services	San Jose ,CA
Network World Bulletin Board	(508)620-1178	LAN and WAN Issues and Technology	Network World Magazine	Framingham ,MA
Newbed	(506)453-2147	Educational System K12 Net	William Brydges	Frederickton ,NB
Newtown Express BBS	(215)943-6806	14.5 Gigs/700+Sigs 18 Lines Large Adult Section USA Today	Anthony Maglietta	Newton ,PA
Night Shift, The	(818)955-5155	16 lines/chat/Usenet Newsgroups/Internet Mail/USATODAY	Charles Hilt	Burbank ,CA
NIST ACTS	(303)494-4775	Automated Computer Telephone Service - Sync PC to NBS Time	Nat. Institute for Standards/Technology	Boulder ,CO
NOAA Space Environment Lab	(303)497-5042	Solar Flare/Geomagnetic Data Online	National Oceanographic/Atmospheric Admin	Boulder ,CO
NoGate Consulting	(616)530-3392	Home of PAK archive utility	Mike Neuhaus Gus Smedstad	Grand Rapids ,MI
North Castle BBS	(507)281-8292	Minnesotas #1 RPG BBS	Rob Richter	Rochester ,MN
O&E Online	(313)591-0903	Free Community BBS, Editorial Text from Newspapers	Greg Day	Livonia ,MI
OAQPSTTN	(919)541-5742	Air Quality Planning and Standards Technology Transfer Net	Environmental Protection Agency	Research Triangle Pk ,NC
OASIS BBS	(404)627-2662	Home of Atlanta Bulletin Board List - ABBL	Robert Orr/Online Atlanta Society	Decatur ,GA
Occupational Health/Safety BBS	(212)385-2034	Job Safety Issues for Artists, Musicians, Entertainers	Mike McCann/Center for Safety in Arts	New York ,NY
ODYSSEY	(818)358-6968	Largest Adult Based Entertainment Service In North America	Michael Allen	Monrovia ,CA
Odyssey	(818)358-6968	Adult Multiline Chat System - Games - Magazines - Downloads	Michael Allen	Monrovia ,CA
OERI BBS	(800)222-4922	Educational Statistics and Data - Performance Stats -	US Department of Education	Washington ,D.C.
Old Colorado City Communications	(719)632-4111	Political Discussions - Unix UUCP Public Access - Multiline	Dave Hughes	Colorado Springs ,CO
Online Now	(807)345-5522	Canada's shareware house is online now	Gary Walsh/Tom Haavisto	Thunder Bay ,Ontario
Online With Hayes	(404)446-6336	Hayes Public Bulletin Board - Conferences/SIGS/Support	Hayes Microcomputer Products	Norcross ,GA
Oracle PC	6108 260-6222	South Australian TBBS Multiline System	Don Crago	Pooraka South Australia ,
Oracomm Support BBS	(612)894-5879	Sales and Support for Oracomm Multiline BBS Software	Surf Computer Services	Minneapolis ,MN
Osprey's Nest	(301)989-9036	Birdwatching, Bird feeding, Naturalist/Ecology Issues	Fran and Norm Saunders	Colesville ,MD
Ozone Hole, The	(504)891-3142	Boardwatch-USA Today-Internet-Usenet-RIME	Mike Mathews	New Orleans ,LA
P.D.S.L.O. BBS	(516)938-6722	Home of THE LIST National BBS List	James Toro	Hicksville ,NY

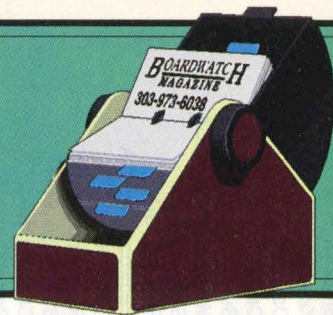
BOARDWATCH MAGAZINE

NATIONAL LIST OF ELECTRONIC BULLETIN BOARDS AND ONLINE INFORMATION SERVICES - July 1994

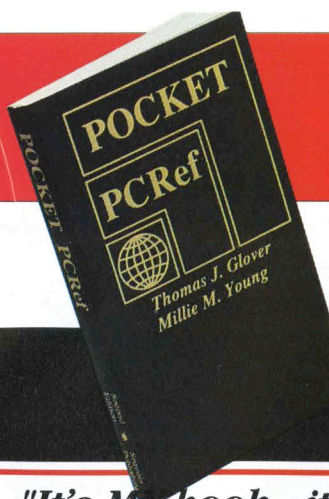
SERVICE	PHONE	DESCRIPTION	SPONSOR/SYSOP	LOCATION
PacComm BBS	(813)874-3078	Packet Radio Equipment Supplier - TNC/PSK Modems	Gwyn Reedy/PacCom Inc.	Tampa ,FL
PC Junction BBS	(615)478-2890	Smartnet Throbnets 100,000 Files & Online Magazines	Douglas Carpenter	Cleveland ,TN
PC Ohio	(216)381-3320	Shareware library with 100% USR HST access - 24 lines	Norm Henke	Cleveland ,OH
Pennywise	(800)752-3012	Online Office Supply Sales Service	Pennywise	Edmonston ,MD
PHYSICS Forum BBS	(413)545-1959	Physics and Astronomical Sciences	Univ. of Mass. Dept. of Physics/Astronomy	Amherst ,MA
Pinecliffe BBS 104/28	(303)642-7463	Large Shareware Library/Echomail Conferences since 1985	Craig Baker	Pinecliffe ,CO
Pinnacle Software BBS	(514)345-8654	Support for Sapphire BBS Software	Timothy Campbell/Pinnacle Software	Montreal ,Quebec
Pipeline, The	(209)592-9861	Construction topics for contractors, suppliers, public works	Michael W. Adams	Fresno ,CA
PKWare BBS	(414)354-8670	Home of PKZIP 1.10 Compression Utility	Phil Katz/PKWare Incorporated	Glendale ,WI
Pleasure Dome	(804)490-5878	Sexually Explicit Fantasy Chat System - Adults only	Tom Terrific	Tidewater ,VA
Practical Peripherals BBS	(805)496-4445	Support BBS for Practical Peripherals Modems	Practical Peripherals	West Lake Village ,CA
ProComm Support BBS	(314)875-0503	Home of ProComm 2.4.3 and ProComm Plus Comm Prgms	Thomas Smith/DataStorm Technologies Inc.	Columbia ,MO
Promised Land, The	(715)387-1339	16-Line/2.5GB/11,000+ Files/ WINDOWS, Chat & More	Tim Brown/Computer Solutions	Marshfield ,WI
Public Brand Software BBS	(317)856-2087	Commercial Shareware Vendor	Public Brand Software	Indianapolis ,IN
Public Connection	(817)738-7336	Public Files	Joe Coles	Ft Worth ,TX
QMail Deluxe Support BBS	(615)230-8822	Support for QMail Deluxe and 1stReader offline mail utils	Mark (Sparky) Herring	Germantown ,TN
Qualitas, Inc. BBS	(301)907-8030	386MAX and BlueMAX Memory Management Software Support	Qualitas Inc.	Bethesda ,MD
Quarterdeck BBS	(310)314-3227	Technical Support for QEMM, DESQview, all Quarterdeck Prods	Quarterdeck Office Systems	Santa Monica ,CA
QuickBBS Support BBS 363/34	(407)896-0494	Product Support for QuickBBS Software	Richard Creighton/Steve Gabrilowitz	Orlando ,FL
Random Access Information Svc.	(503)695-3250	11,000 GIF Images - 20,000 DOS/Windows Shareware Files	Janice Stevens	Corbett ,OR
RoboBOARD/FX	(819)682-7771	RoboBOARD Support 8 Lines	Hamilton TeleGraphics Inc.	Aylmer ,PQ
Ronin BBS	(214)938-2840	Traditional File and Message BBS	Chuck Mattern	Red Oak ,TX
Rose Media	(416)733-2780	19 GB - Home of Rosemail - Publications/Conferences	Vic Kass	Willowdale ,Ontario
Rusty & Edies	(216)726-0737	Large ML PCBoard run by Husband and Wife - NFL/Tradewars	Rusty and Edwina Hardenburgh	Boardman ,OH
Sahara Club BBS	(818)893-1899	Land-Use issues, Off-Road, Timber, Conservation	Patrick Martin/Sahara Club	North Hills ,CA
Salt Air BBS	(801)261-8976	Home of PCBoard BBS Software - National List of PCB Sys	Clark Development Company/David Terry	Murray ,UT
San Diego NeXT User's Group BBS	(619)456-2522	Support for NeXT Computers	Brian Dear/San Diego NeXT User's Group	San Diego ,CA
SBA Online	(800)697-4636	Advice for Small Business Owners on Financing/Management	Small Business Administration	Washington ,DC
Science Resource Studies BBS	(202)634-1764	Federal R&D Budget - Technical Labor Market Statistics	National Science Foundation	Washington ,D.C.
SDN Project, The 1:141/840	(203)634-0370	The Original Software Distribution Network	Ray Kaliss	Meriden ,CT
SEABoard!	(804)442-6047	Support system for ARC, SEADOG, and AXE software.	System Enhancement Associates	Nassawadox ,VA
Seagate Technical Support BBS	(408)438-8771	Installation and Specifications for Hard Drive Models	Seagate/Bill Rudok	Scotts Valley ,CA
Searchlight BBS	(516)689-2566	Support system for Searchlight BBS Software	Searchlight Software	StonyBrook ,NY
SemWare Support BBS	(404)641-8968	Home of QEdit - A Superb Shareware Text Editor	Sammy Mitchell/SemWare Software Products	Marietta ,GA
SENDIT	(701)237-3283	North Dakota K-12 Educational Net-telnet sendit.nodak.edu	Gleason Sackman/NDU	Fargo ,ND
SIGCAT BBS	(703)648-4168	CD-ROM /Optical Publishing Info - Lists of Gov. CD Data	SIG on CD-ROM Applications and Technol.	Gathersburg ,MD
Sistema Profesional Informacion	525 590-5988	Largest BBS in Mexico - Spanish Language TBBS	Tecnologia Uno Cero S.A. de C.V.	Mexico City ,
Skeleton Closet, The	(804)671-8547	Genealogy Programs File Distribution Net 1:271/23	Debbi McKay	Virginia Beach ,VA
Society for Technical Comm. BBS	(703)522-3299	STC Job Service, Freelance Registry - Technical Writers	Society for Technical Communication	Washington ,D.C.
Software Creations BBS	(508)368-4137	Home of Apogee Software/Commander Keen Series	Dan Linton	Clinton ,MA
Sound Advice BBS	(816)436-4516	Twenty Line PCBoard with 2 Gigabytes Storage - HST Modems	Roy Timberman	Gladstone ,MO
Source for Source, The	(516)968-7824	Source code - large LINUX file collection	Erik VanRiper	Bay Shore ,NY
Space BBS	(415)323-4193	Multi Node BBS for Engineers	Owen Hawkins	Menlo Park ,CA
Spark*Net	(718)447-5544	Internet E-Mail, Worldlink, Chat, Games, Forums, Files	John Spark	New York City ,NY
Spectrum Online Systems	(719)576-6853	Graphics Based Service, Full Internet Access	Chris Phillips	Colorado Springs ,CO
Star Tech BBS	714-257-1175	LA/Orange local access Fidonet hub, file echos, and internet	David Unfried	Orange County ,CA
Star-Link Network BBS	(718)972-6099	9-nodes, 2.1GB, llink, 75,000 programs	Michael Keylin	Brooklyn ,NY
Starlink BBS	(915)235-4818	Technical Support for Predictive Maint Customers	John Land	Sweetwater ,TX

StarLink Information Services	(502)964-7827	Online Travel Service, Internet Movie Reviews & Weather	Scott Goldbach	Louisville ,KY
State and Local Emergency Mgmt.	(202)646-2887	Hazardous Materials/National Dam Watch/Emergency Info	Federal Emergency Management Agency	Washington ,D.C.
Streame	(718)349-8137	Connecton to the World of New York Book Publishing	BookStreame	Brooklyn ,NY
Sun Valley Net	(208)726-1435	Information & Files on environment & outdoors	Stephen Schowengert	Ketchum ,ID
Superdemocracy Foundation BBS	(305)370-9376	Online Democracy/Political Culture for the Future	Tim Stryker	Davie ,FL
T-80 BBS	(403)246-4487	3.6 Gigs, 4 CD Roms 7,000 GIFS 20,000 Shareware Programs	Brian Simpson	Calgary ,AB
TAXACOM	(716)896-7581	Botany, Herbaria, FLORA ONLINE Newsletter, Latin Translation	Clinton Herbarium, Buffalo Museum	Buffalo ,NY
TEAMate Unix Bulletin Board	(310)318-5302	Demo/Support for TEAMate BBS Software for Unix	Bob Baskerville/MMB Development Corp.	Manhattan Beach ,CA
Telebit Support BBS	(408)745-3229	Support for Telebit Modems	Telebit Corp.	Sunnyvale ,CA
Telegodzilla	(503)621-3746	Home of ZModem File Transfer Protocol/YModem/YAM	Chuck Forsberg/Omen Technology Incorp.	Portland ,OR
Telepath	(415)358-8641	DBMS/Dr. Dobbs Journal Magazine Online Service	M&T Publishing	Redwood City ,CA
Telix Support BBS	(919)481-9399	Support Service for Telix Communications Software	Jeff Woods/deltaComm Development	Cary ,NC
The Back Room	(718)849-1614	America's Largest Exclusively Gay DB - Home of Gaycomm	Fred Kohn	Richmond Hill ,NY
The Business BBS	(619)576-0049	Business Related Files & Info	Doug Rowan	San Diego ,CA
The Club House BBS	(908)272-2073	ADA, OSHA, RTN, 18 CD Roms Online & 30+ Games	George Porcella	Cranford ,NJ
The Eastside BBS	(407)337-1274	Family Oriented BBS Files, Conferences and Online Games	David Lane	Port St Lucie ,FL
The Electronic Grapevine	(707)257-2338	Local Online Message and Info Provider, Rime Node	Dick Wolff	Wapa ,CA
The File Bank	(303)534-4646	16 Line File Library - Radio Comm/Astronomy - USA Today	Girard Westerberg/Brian Barte	Littleton ,CO
The Hot Heart of Tennessee	(615)890-8715	Home of hot programs, supports PC, Amiga	Larry Reeves	Murfreesboro ,TN
The INDEX System	(404)924-8472	Excellent list of Atlanta BBS systems online	Rodney Aloia	Atlanta ,GA
The Ledge PCBoard	(818)896-4015	Home of Textview Door for PCBoard Systems	Joseph Sheppard	Tujunga ,CA
The Liberty BBS	(714)996-7777	Nation wide Chat, E-Mail, Forums, games, CD-Roms,Online News	John Galt	Anaheim Hills ,CA
The New Professional Network BBS	(413)549-8136	Hundreds of software and is job openings nationwide, FREE	ADA, National Tech. Search/Eric Davis	Amherst ,MA
The Opowd Crowd	(708)885-8865	Specializing in outdoor activities and sports	KW Wroblewski	Hoffman Estates ,IL
The Other BBS 1:1/0	(717)657-2223	Fidonet Zone Coordinator for North America 1:1/0	George Peace	Harrisburg ,PA
The Well	(415)332-6106	Unix Conferencing System - \$15 monthly plus \$2 Hourly	Whole Earth Lctronic Link	Sausalito ,CA
Thunderbolt BBS	(703)373-9289	Various Files & Message Areas	John Schreiber	Falmouth ,VA
Tiger Team Buddhist Info Network	(510)268-0102	America's Buddhist Online Service	Gary L. Ray	Berkeley ,CA
Titan BBS	(904)476-1270	Adult BBS - Online Games - GIF Images	Clayton Manson	Pensacola ,FL
Tool Shop BBS	(818)891-6780	Home of HS-Link and other tools for PCBoard Systems	Sam Smith	San Fernando ,CA
Town Hall	(800)441-4142	Conservative Political Conference and Debate	National Review/Heritage Foundation	Washington ,DC
Traders Connection	(317)359-5199	Online System for Classified Advertisements	Carson Hanrahan	Indiannapolis ,IN
Trinity 1 BBS	44 392 410210	United Kingdom Distributor of Boardwatch Magazine	John Burden	Exeter Devon ,U.K.
TurBoard	(404)395-6327	NAPLPS Graphics BBS System	Software@work	Chattanooga ,TN
U.S. Robotics - Sit UBU Sit	(708)982-5092	Support for US Robotics HST 9600 bps Modems	U.S. Robotics Corporation	Skokie ,IL
US Naval Observatory BBS	(202)653-1079	Time - Date - Sunrise - Sunset - Enter @TCO for Commands	US Department of Commerce US Naval Obser	Washington ,D.C.
USDOE BBS	(202)260-9950	Currently available grants and contracts for Education	U.S. Dept. of Education/George Wagner	Washington D.C. ,
USGS Quick Epicenter Determin.	(303)273-8672	Earthquake Epicenter Data - Geomagnetism7E2 800-358-2663	US Geological Survey Earthquake Info Cnt	Denver ,CO
USNO Time of Day for Clocks	(202)653-0351	Xmits ASCII Time String - Sync Your PC to USNO Atomic Clock	US Naval Observatory	Washington ,D.C.
UT Library Online Catalog	(512)471-9420	Online Library Card Catalog Listing 3.5 million entries	University of Texas at Austin	Austin ,TX
WeatherBank	(800)827-2727	Online Weather Forecasts for Any City - Download Radar Data	Steve Root/WeatherBrief Data Services	Salt Lake City ,UT
Western Digital Tech Support	(714)753-1068	Hard Drive/Controller Installation and Config Data	Western Digital Corporation	Irvine ,CA
Westside, The	(213)933-4050	Area's Largest/Most Active Adult System-Chat,E-mail,Games,	Dave Harrison	Los Angeles ,CA
Wildcat HQ BBS 210/12	(805)873-2400	Multiline Support System for Wildcat BBS Software	MSI - Mustang Software, Inc.	Bakersfield ,CA
Windsor Manor	(203)688-4973	Over 120 Online games Tabs Subscription Running VBBS	Jim Taylor	Windsor ,CT
Wizard's Gate,The	(614)224-1635	Multi-Line Totally Free BBS-Multi Player Games,Files,Message	Joseph G. Balshone	Columbus ,OH
Word Perfect Customer Support	(801)225-4444	Word Perfect 4.2/5.0/5.1 Support/Printer Drivers	Word Perfect Corporation	Orem ,UT
Worldview BBS	(510)676-2919	Reformed Protestant Topics; Telefinder Host	Bill Gram-Reefer	Concord ,CA
WWIV Support BBS	(310)208-6689	Support for WWIV BBS Software	Wayne Bell	Rolling Hills Estates ,CA
XTree BBS	(805)546-9150	Support for XTree Pro Gold DOS Shell Program	XTree Company	San Luis Obispo ,CA
XyQuest Support BBS	(508)667-5669	Support for XyWrite Word Processor - Custom Keyboard Files	XyQuest Inc. - Christine Madsen	Bellerica ,MA
Yellow Dream Machine BBS	(512)451-3222	Disability Rights Issues - Variety of Disability Newsletters	Bill Scarborough/Cyanosis Rex	Austin ,TX
Z/Max XChange UNIX BBS	(315)635-1947	Demo/online support for XChange UNIX BBS	Z/Max Computer Solutions, Inc.	Baldwinsville ,NY

BOARDWATCH MAGAZINE *Advertisers*



Addison-Wesley Publishing Company.....	81	Imagen, Inc	141
ADP Autonet.....	94	INDEX System, The	44, 94
APDI	83	infoboard.....	126
Arsenal Computer.....	84	Infolink	125, 129
Baylor Instruments and Technologies, Inc	79	Information Access Technologies, Inc.....	71
BBS Guide	94	Integrated Solutions\Online Services	35, 37, 89, 99
BBS Technologies	35	interact.....	122
BFP Communications.....	55	Iris Silhouette	123
Business BBS, The.....	76	Just For Fun	103
CD Archive, Inc.....	123	Keyhole Publications	124
CDS	82	Lease Master, The.....	124
Clark Development, Inc	17	Logicom, Inc	59
Classified Connection	86	Metroline BBS.....	86
Connections BBS	126	Mike Robinson Software.....	123
CSI.....	55	MMB Development	35
Dallas Remote Imaging Group	85	Modern BBS	90
DataSafe Publications, Inc	43	Mustang Software, Inc.....	107, 13, 29, 45
Delphi - General Videotex	49	ONE, Inc	139
Delta Comm Development	143	Online Technologies.....	122, 125
DFW Electronics	51	Page Sat, Inc.	63
Digicom Systems, Inc	42	Planet Systems, Inc.....	87
Digital Dynamics.....	77	Profit Group	41
DSC	44	Santronics.....	103
Durand Communications	72, 85	Searchlight Software	52
EC Computer Services, Inc	44	Soleau Software	68
EMS Professional Shareware.....	125	Summit Software Services	126
eSoft, Inc	6	Supra Corporation	27
Event Horizons	79	System 2000.....	44
Exec-PC	38	Teleflora.....	51
Fantasy Land Computer Services	122	Telegrafix Communications, Inc	50
Galacticomm, Inc.....	144, 2	Trader's Connection	75
Graphic Impulse	46	UNI-ROM.....	91
GTEK.....	86	US Videotel, Inc.....	30
GW Associates	37	Vector Services Corp.....	85
Hamilton Telegraphics, Inc	142	VHBG	78
Hayes Microcomputer.....	15	World Class Software	124
IAN, Inc.....	93	ZyXEL.....	23



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DOS Command reference - all of them through version 6.0 - some 200 pages.

DOS History - release dates, file sizes, the works.

PC Industry Phone Book - a little over 3500 telephone numbers of companies prominent in the personal computer industry. That gets thumbed a bit.

Hard Disk Configuration Data - ever lose your CMOS? You're hard disk disappears. All your data is there, and you can easily get it back, if you can just remember how many heads, how many cylinders, how many sectors per track, a little info on the landing zone, etc. Rub a lamp. This little book lists 2300 different drives with exactly the info you need to get back up in seconds.

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Jack Rickard

Plus product support bulletin board lists and in this 3rd addition, we talked them into including the Boardwatch Magazine Reader's Choice top 100 Bulletin Board list. This isn't light reading, it's not a "how-to" book. It's a little (3.2 X 5.4 X 0.6) reference book with hundreds of little tables of information, phone numbers, and conversion tables. The kind of information you only need when you need it, and then you usually can't find it - or if you can, it's buried in some monster manual full of somebodies theory of how the computer industry ought to be. With this midget lookup book, you can quickly lookup the thing you need to know now. Send me \$15.95 - I'll send you one of your own. And yeah, I suppose you could carry it around in your pocket if you want.

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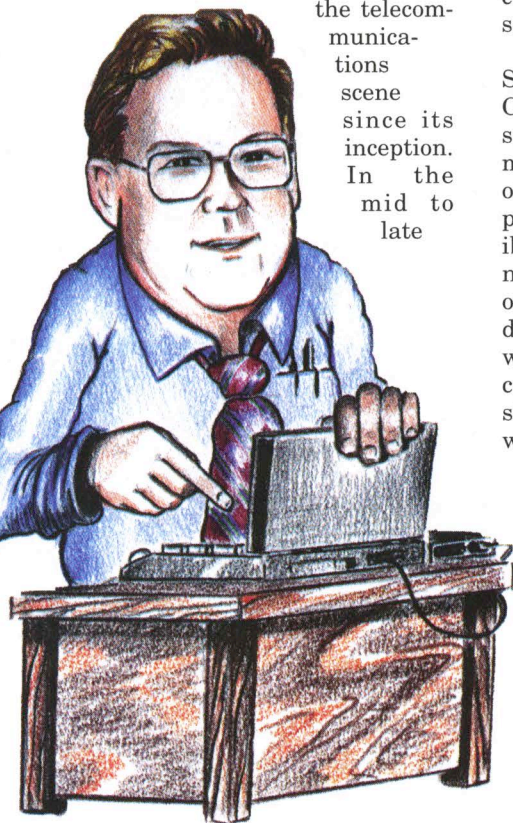
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THE FUTURE OF THE INTERNET

So Mosaic comes along and the next thing you know everyone, and I mean everyone, is completely gah-gah about the Internet. I suppose Al Gore and his Information Superhighway had something to do with it too. It's not as if the real pioneers — the BBS community-at-large aren't the real scouts in this emerging scene. But how many scouts are famous?

I've followed the telecommunications scene since its inception. In the mid to late



1970s I had a smallish software company selling one of the earliest telecommunications packages available. It was in the 1978/1979 time period a lone programmer out in San Francisco, Pavel Breder, had developed a Comm package using Ward Christensen's Modem7 protocol — the forefather of Xmodem. At the time there were 2 different S-100 bus modem cards available. One was from D.C. Hayes (the original name of Hayes) and one from Potomac Micro Magic, Inc., or PMMI. The PMMI was the preferred modem of the era since it could hit up to 600 baud when chatting with another PMMI modem.

Using the telecomm program and Modem7 you could send binary files from one computer to the other. It was great.

The smarter guys really got into telecommunications and grew an industry that now comprises 50,000 or more BBSs around the country. The scene blossomed as the modems went from 1200 to 2400 to 9600 to 14.4 kbps and as the prices for modems plummeted.

It was about four years ago, though, that a new rumbling began. Johnny-come-latelies, many fresh out of school, began to promote the Internet.

Some of the credit also goes to Vinton Cerf as he helped make the core of the system workable. He's also done a marvelous job of fending off the obvious criticism that will one day be portrayed as a scandal — the incredible openness of the system whereby neo-Nazis, racists, religious bigots and other societal pigs can promote any dangerous lie they wish openly and without fear of retributions. This is compounded by the ease in which slander and/or libel can be spread without the source being known. The

Internet, by its nature, will slowly degenerate into a cess pool of hate and personal abuse. While so-called "flames" are common on all interactive systems, the real nasty ones are on the Internet. Even America Online, which is as liberal as it gets in the big board scene, will monitor the activity of the members to some degree. Not so with the Internet.

The idea of a totally open system is interesting, but impractical at some point. In fact it is nothing less than anarchy. Anarchy is not a viable form of government, no matter what they say in Berkeley.

One of two things will happen to the Internet by necessity; 1) the government will step in and regulate the service. Since regulation is an anathema to the service, the government will, in fact, ruin the Internet by trying to control it. Or, 2) The service will decay into encrypted mini-services all doing their own thing and requiring paid memberships to join. This means the abandonment of the IRC and all the openness of the net. It

will still be a net, but it will be sanitized, fragmented, closed.

The second scenario is the most obvious and will take place even if the government tries to force regulation. In fact a mention of regulation will just spur the second scenario into action more quickly as panic sets in.

The triggering mechanisms for all this to occur are already in place in the form of Nazism and kiddie porn out of Amsterdam. Once the popular media figures out how this all works they'll be collectively scandalized and all hell will break loose.

Of course much of this is part of a forgone conclusion once the users of the Internet realize that every e-mail they send is probably scrutinized by the NSA and who knows who. It's no coincidence that the encryption products are some of the most downloaded files on the net.

The government will soon step on this fad too. As incredible as it may seem the government will not let us use whatever encryption we feel like using. I find this unbelievable. What next? We won't be allowed to memorize anything either? That's a form of encryption isn't it? I can only imagine how a court case would go regarding encryption.

JUDGE: What's the charge?

PROSECUTOR: Illegal use of unauthorized encryption software.

JUDGE: Defendant, do you have a plea?

DEFENDANT: Not guilty by reasons of sanity!!

JUDGE: If found guilty you will have to spend the rest of your life in jail!

DEFENSE ATTORNEY: My client was just trying to protect personal information.

JUDGE: What was the nature of this information?

DEFENSE ATTORNEY: He was sending e-mail to his wife telling her that he had a wart on his buttocks. The last time he sent such a memo telling her that he had developed a

bad case of gas from eating too much garlic the NSA had spread the note all over their bulletin boards. It finally got posted on an Internet newsgroup. Everyone who saw him after that called him Mr. Garlic Fart. It was humiliating.

JUDGE: So this is why he encrypted his data? He didn't want to be called, what, er...

DEFENSE ATTORNEY: Wart Butt.

JUDGE: Well, the law is the law.

PROSECUTOR: Your honor, this is nonsense. And the law IS the law. If he wanted more secure communications he could have sent a letter or used CompuServe. The Internet is wide open.

JUDGE: Well being wide open it sounds like you need good encryption.

PROSECUTOR: Too bad. The system is meant to be monitored. There are too many radical academicians on it and other crackpots. People with a dime in their pocket who can afford a regulated more secure service should sign up for CompuServe or something.

JUDGE: Good point. Let me ask the defendant. Are you just a cheap SOB? Is that why you use the Internet? Even I know that a local BBS is more secure than the Internet. What have you got to say for yourself?

DEFENDANT: I'm guilty your honor. I throw myself on the mercy of the court.

JUDGE: 50 Years hard labor Mr. Wart Butt!! Next case!

Well, maybe not quite that bad, but I can't imagine how they can do much more than fine you \$50 for using unapproved encryption. And how the heck can they tell anyway? The poor guy who wrote Pretty Good Encryption is being prosecuted for allegedly passing a copy of the software overseas in violation of some ridiculous export act. As if Russians or any other math geniuses in Europe can't read the literature and write the code themselves.

Anyway, the point is the Internet as it now exists will not be this way forever. My advice is to enjoy it while you can, but don't quit your day job. The day job is the BBS scene.

Margarita Souffle

This month's recipe comes from my files, but was provided by Bill Machrone, former Editor-in-Chief of *PC Magazine*. He's a healthnut, so you can be sure this is a healthy recipe.

Ingredients:

3/4 cup sugar
1/3 cup instant nonfat dry milk powder
1/4 cup flour
1/8 tsp salt
2/3 cup water
1/4 cup tequila
juice of 3 limes
2 eggs, separated
Powdered sugar
Salt

Mix dry ingredients. Mix wet ingredients and yolks. Beat whites stiff. Grease souffle dish or charlotte mold (I prefer the latter) with butter or margarine. Dust with vanilla cookie crumbs. Mix wet and dry stuff. Stir long enough for the sugar to dissolve. Fold in egg whites. Pour into mold.

Bake at 350F 35-45 minutes. Dust with powdered sugar. Serve in dessert dishes (glass ones with vertical sides or the dumb, wide-top champagne glasses are good) after having dipped the top edge in lime juice and kohser salt.

You can use a little lime rind for more zing, but a little goes a long way. This sucker is very sweet. You can change the character by adding another egg and/or reducing the sugar to maybe half a cup.

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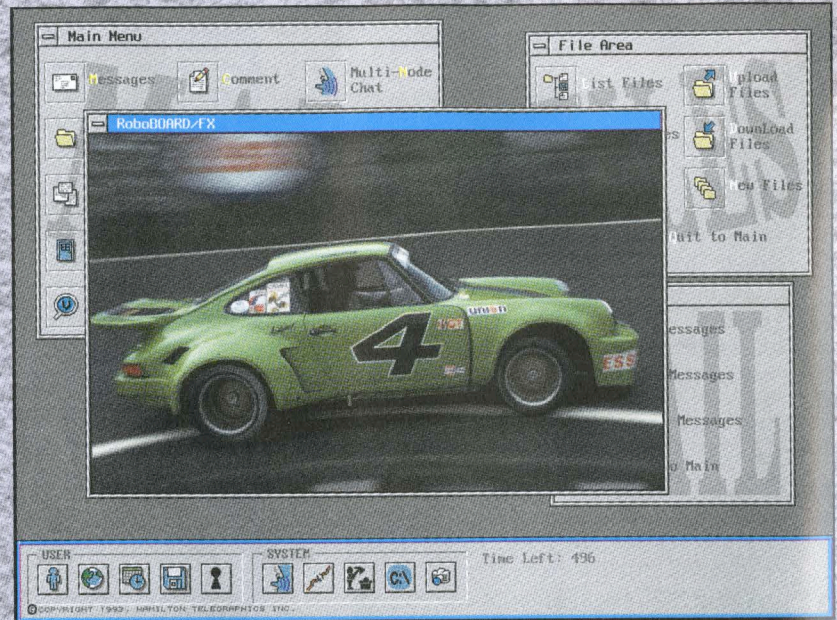
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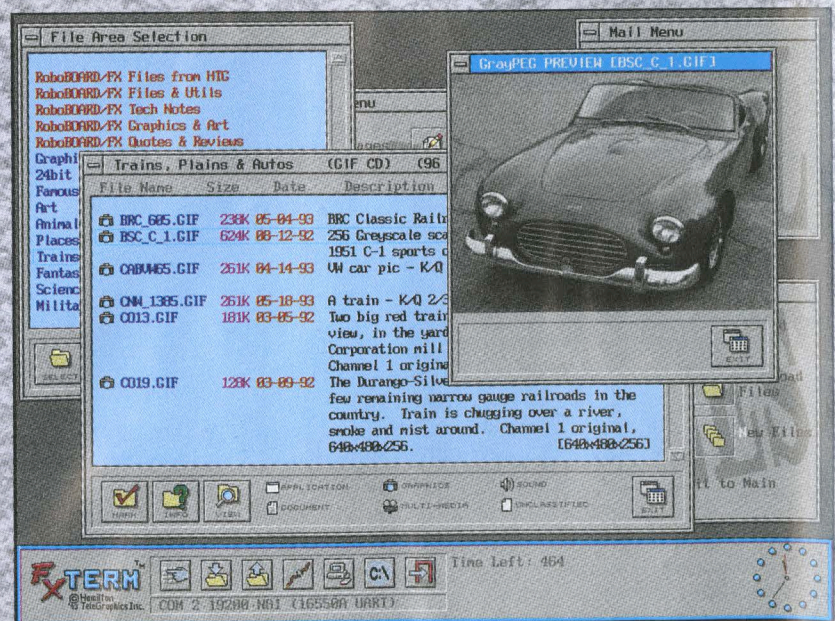
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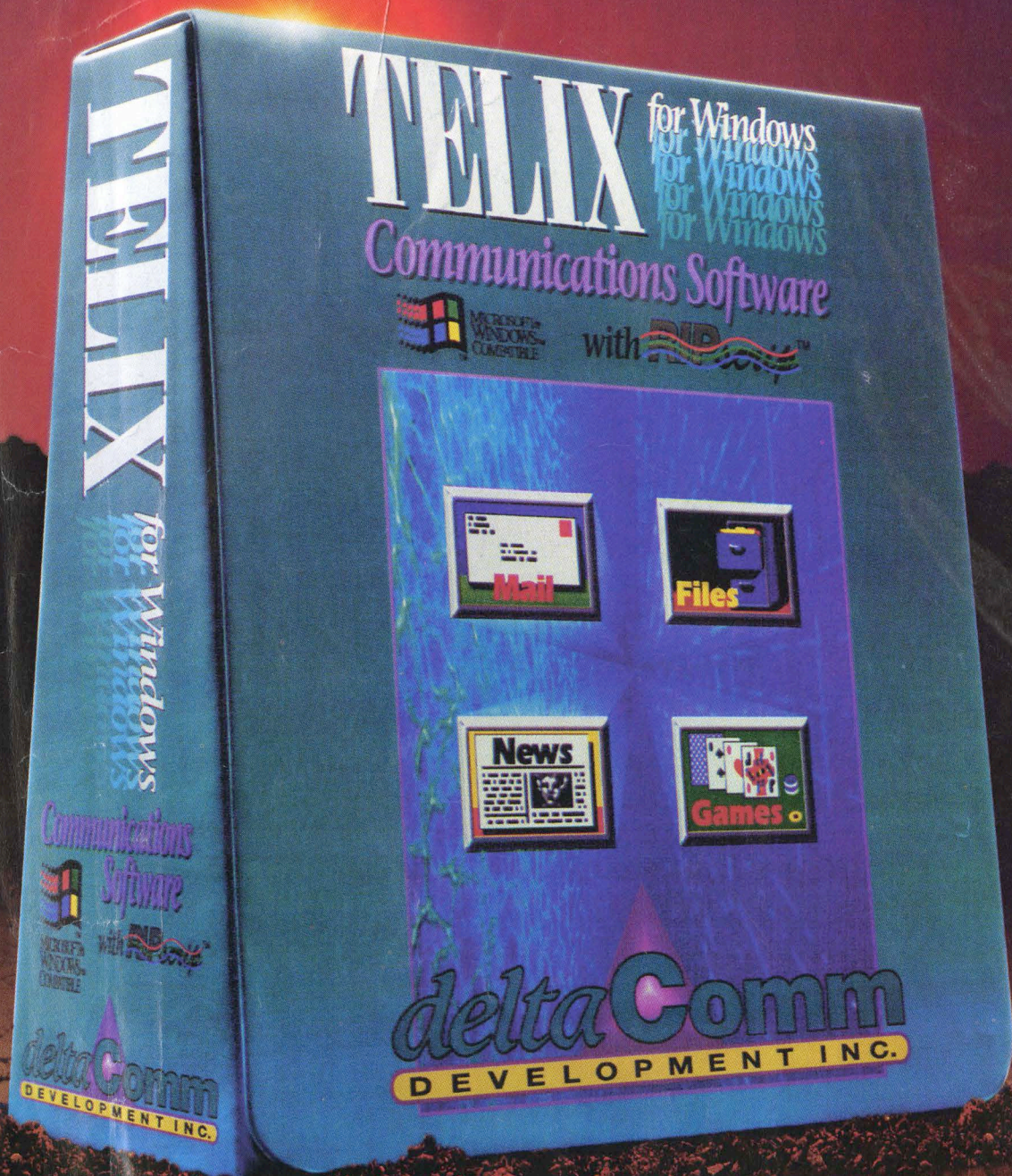


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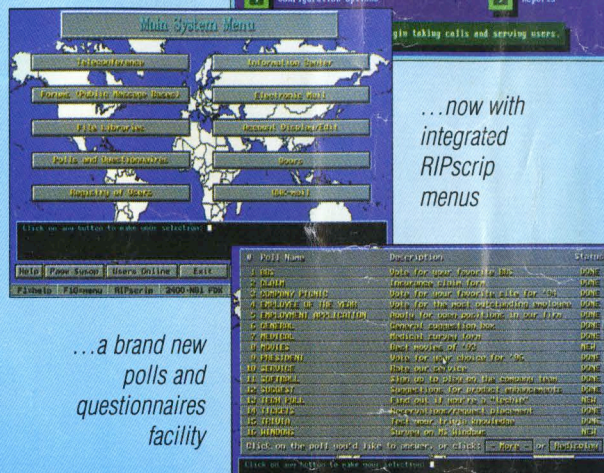
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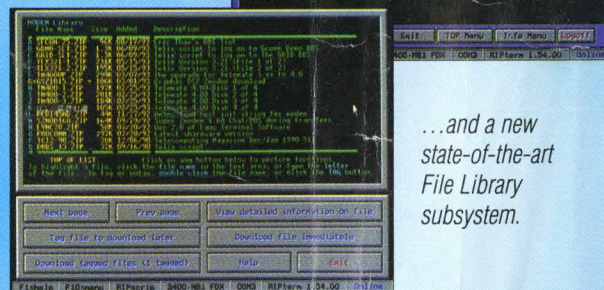
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